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|--|----------------|----------------------|--|----------------------------|---|---|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-11 | | | | |
| | | | | | | <input type="checkbox"/> Other <input type="checkbox"/> Amendment Number: | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name NSHMs Analysis | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: The purpose of this amendment is to initiate Work Assignment(WA)3-11. The level of effort (LOE) is in the amount of 1143 hours. Jesse Miller is appointed as the work assignment manager (WAM). The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 1,143 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 1,143 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| Work Assignment Manager Name Jesse Miller <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number 703-308-1180 FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number: FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number: 202-564-8316 FAX Number: | | | | |

EPA CONTRACT NUMBER EP-W-12-013

Statement of Work

Work Assignment Number: 3-11

Work Assignment Amendment Number: 0

Title: **Identification of Non-Hazardous Secondary Materials (NSHMs) That Are Solid Waste, Contaminant Analyses, and Related Work**

Work Assignment Manager (WAM):

Jesse Miller

Address:

OSWER/ORCR /MRWMD
Mail Code 5304P
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

Telephone:

(703)-308-1180
(703) 308-5268 (front office)
(703) 308-7903 (FAX)

BACKGROUND:

The United States Court of Appeals for the District of Columbia Circuit vacated and remanded two U.S. Environmental Protection Agency (EPA or the Agency) rules promulgated under the CAA — The Commercial and Industrial Solid Waste Incineration definitions rule (“Definitions Rule”), issued under CAA section 129, and the Industrial Boilers Maximum Achievable Control Technology (MACT) standards rule (“Boilers Rule”), issued under CAA section 112. The court concluded that EPA erred by excluding units that combust solid waste for the purposes of energy recovery from the Definitions Rule and including such units in the Boilers Rule. In response to the court’s decision, EPA is preparing to establish new standards under CAA sections 112 and 129 for the various units subject to each section.

As part of the development of new standards under CAA sections 112 and 129, EPA must establish under RCRA, what non-hazardous secondary materials constitute “solid waste.” This is necessary because, under the court’s decision, any unit combusting any “solid waste” must be regulated as a “solid waste incineration unit,” regardless of the function of the combustion device. If a non-hazardous material is not a “solid waste” under RCRA and such material is burned for fuel or used as an ingredient in a combustion manufacturing process, then under the court’s decision, the combustion unit would properly be regulated pursuant to section 112 of the CAA. Alternatively, if such material is a “solid waste” under RCRA, and is burned for fuel value or used as an ingredient in a manufacturing process and such ingredient is combusted, then the unit must be regulated under section 129 of the CAA.

In March, 2011, the Final Rule: Identification of Non Hazardous Secondary materials that are Solid Waste was signed. A final rule identifying targeted revisions to the March 2011 rule was issued in February 2013. ORCR is currently in the process of implementing the final rules.

This Work Assignment 3-11 is a logical follow-on to Work Assignment 2-11 under contract EP-W-12-013. In addition to the two rules discussed above, ORCR is also working on another two rules that will add materials to the list of categorical non-waste fuels. On April 14, 2014, a proposed rule was signed titled Additions to List of Section 241.4 Categorical Non-Waste Fuels. This rule proposed to list the following as categorical non-waste fuels: 1) construction and demolition wood processed according to best management practices; 2) paper recycling residuals (including old corrugated cardboard); and 3) creosote treated railroad ties. ORCR is currently finalizing this rule. ORCR is also working on a rule in response to a petition requesting materials to be added to the list of categorical non-waste fuels. Both of these rules are being worked on simultaneously.

SCOPE OF THIS WORK ASSIGNMENT:

The purpose and scope of Statement of Work is for the contractor to continue to provide technical support to EPA in further implementing the March, 2011 Final Rule as well as providing technical support for developing the new categorical rules.

This work assignment may also include contaminant data analysis, data quality assessment, comment response support, and data review. Project coordination, project communication, and outreach with guidance are also within the scope of this work assignment.

In addition, this work assignment is for the necessary analytical and other technical support for the development and implementation of the current categorical rules being worked on by ORCR.

WORK STATEMENT:

Task 1. Work Plan, Progress Reports and Budget

Within twenty (20) days of receipt of this work assignment, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this Work Assignment shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html

As part of the monthly progress reports for this Work Assignment, the Contractor shall provide a summary of all data quality activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the COR.

Contractor travel is authorized under this Work Assignment. However, the contractor shall not budget for any travel at this point. Any travel will have to be authorized by the TOCOR in advance.

Deliverable(s) and Schedule:

Work Plan and Budget within allotted time frame identified above.

Task 2. General Analytical Support

The project addressed under this Work Assignment: **Identification of Non-Hazardous Secondary Materials That Are Solid Waste Analyses**, is an action that requires a wide range of analytical support including evaluation of contaminant sampling data from NHSMs, and a comparison of the contaminant concentration levels in those NHSMs to levels in traditional fuels including: coal, oil, biomass and natural gas. The Agency also anticipates the need to assess heretofore unknown issues, materials, or industries that may be impacted by the action. These assessments may require data collection and assessment, new research and analysis, or related supporting activities. The Agency also anticipates the need to assess case-by-case processing for different companies claiming fuel to be used under NHSM. This assessment will also include how these case-by-case scenarios meet the legitimacy criteria laid out in the 2011 rule.

An understanding of the contaminant comparison methodologies described in the preamble to the Feb 7, 2013 NHSM final rule (78 FR 9111) is expected. In addition, part of this task is to build on the framework in the preamble and to be able to apply contaminant comparisons on a case-by-case basis. Novel issues will have to be resolved pertaining to contaminant comparison methods acceptable for different instances. This includes an understanding of when it is acceptable to group contaminants, an understanding of acceptable statistics when comparing ranges, etc.

Under this Task, the contractor shall be prepared to assess unexpected issues and provide research, support, and documentation, as identified through a Technical Directive (TD). This Task also includes related support needs such as scoping papers, summary papers, and conference calls.

This task will also include a summary of NHSM rulemaking comments, a categorization of NHSM rulemaking comments, and development of response to those comments (integrating EPA responses as appropriate into a response package). Upon direction of the TOCOR, the contractor shall develop a draft and a final document for both categorical NHSM rules.

All work under this Task shall be initiated through a Technical Directive (TD). The contractor shall budget for approximately six (6) TDs under this Task.

Deliverable(s) and Schedule:

There shall be separate draft and final deliverables for each Technical Directive received under this task. These deliverables shall be in e-mail, memo, paper, or briefing format, as appropriate for the material and requirements. Tables and charts shall be included in all deliverables as appropriate to ensure presentation clarity and ease of understanding. (All charts shall be in an editable format.) The draft deliverables shall be due to the COR no later than ten (10) Agency working days following contractor receipt of the TD, plus all necessary supporting information. The final deliverable(s) shall be due to the COR no later than five (5) Agency working days following contractor receipt of all written COR comments on the draft document(s).

Task 3. Regional/State NHSM Training Guide

Upon direction of the TOCOR, the contractor shall develop a training guide for regional and state personnel. This training guide may include but are not limited to the following options: (1) a guidance document explaining how the new NHSM regulations are put into practice; (2) an online training component that walks regional and state personnel through the details of the rules; (3) a brochure that breaks down the specifics of the NHSM requirements and can be posted on ORCR's NHSM website; (4) a webinar specifically designed for regional and state personnel; and (5) a one to two day training course hosted in Washington D.C. that provides a step-by-step breakdown of how the NHSM rules apply.

All work under this Task shall be initiated through a Technical Directive (TD). The contractor shall budget for approximately two (2) TDs under this Task.

| SCHEDULE OF DELIVERABLES | | |
|--|--|---|
| TASK NUMBER and DELIVERABLE | WORK ASSIGNMENT DUE DATES | |
| | DRAFT | FINAL |
| <u>Task 2: General Analytical Support</u> | | |
| Per each Technical Directive (TD) | Ten (10) Agency working days following contractor receipt of the TD. | Five (5) Agency working days following contractor receipt of all written comments on the draft. |
| <u>Task 3: Regional/State NHSM Training Guide</u> | | |
| Per each Technical Directive (TD) | Two (2) Agency working days following contractor receipt of the TD. | Five (5) Agency working days following contractor receipt of all written comments on the draft. |
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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-11 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name 3-11 Amendment 1 | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: Purpose of this amendment is to approve the contractor's work plan and cost estimate dated 5/20/2015 with Level of Effort (LOE) 1143 hours and \$118,942.12 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approved ceiling without the approval of the Contracting Officer. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO (Max 2) 22 | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | LOE: 1,143 | | | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | 0 | | | | | | |
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| Total: | | | | 1,143 | | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | | LOE: | | | |
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| Cumulative Approved: | | | | Cost/Fee: | | | LOE: | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Jesse Miller | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number 703-308-1180 | | | |
| | | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: | | | |
| | | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | | FAX Number: | | | |

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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-11 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name NSHMs | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: The purpose of this amendment is to add additional level of effort (LOE) in the amount of 343 hours. The statement of work is attached and the contractor shall submit a work plan and cost estimate as it relates to the subject matter. The total LOE for this WA is 1486 hours. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO (Max 2) 22 | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 1,486 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 1,486 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| Work Assignment Manager Name Jesse Miller <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number 703-308-1180 FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number: 703-605-0509 FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number: FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque <div style="display: flex; justify-content: space-between;"> <div>_____ (Signature)</div> <div>_____ (Date)</div> </div> | | | | | | Branch/Mail Code: Phone Number: 202-564-8316 FAX Number: | | | | |

EPA CONTRACT NUMBER EP-W-12-013

Statement of Work

Work Assignment Number: 3-11

Work Assignment Amendment Number: 2

Title: **Identification of Non-Hazardous Secondary Materials (NSHMs) That Are Solid Waste, Contaminant Analyses, and Related Work**

Work Assignment Manager (WAM):

Jesse Miller

Address:

OSWER/ORCR /MRWMD
Mail Code 5304P
1200 Pennsylvania Ave. N.W.
Washington, D.C. 20460

Telephone:

(703)-308-1180
(703) 308-5268 (front office)
(703) 308-7903 (FAX)

BACKGROUND:

The United States Court of Appeals for the District of Columbia Circuit vacated and remanded two U.S. Environmental Protection Agency (EPA or the Agency) rules promulgated under the CAA — The Commercial and Industrial Solid Waste Incineration definitions rule (“Definitions Rule”), issued under CAA section 129, and the Industrial Boilers Maximum Achievable Control Technology (MACT) standards rule (“Boilers Rule”), issued under CAA section 112. The court concluded that EPA erred by excluding units that combust solid waste for the purposes of energy recovery from the Definitions Rule and including such units in the Boilers Rule. In response to the court’s decision, EPA is preparing to establish new standards under CAA sections 112 and 129 for the various units subject to each section.

As part of the development of new standards under CAA sections 112 and 129, EPA must establish under RCRA, what non-hazardous secondary materials constitute “solid waste.” This is necessary because, under the court’s decision, any unit combusting any “solid waste” must be regulated as a “solid waste incineration unit,” regardless of the function of the combustion device. If a non-hazardous material is not a “solid waste” under RCRA and such material is burned for fuel or used as an ingredient in a combustion manufacturing process, then under the court’s decision, the combustion unit would properly be regulated pursuant to section 112 of the CAA. Alternatively, if such material is a “solid waste” under RCRA, and is burned for fuel value or used as an ingredient in a manufacturing process and such ingredient is combusted, then the unit must be regulated under section 129 of the CAA.

In March, 2011, the Final Rule: Identification of Non Hazardous Secondary materials that are Solid Waste was signed. A final rule identifying targeted revisions to the March 2011 rule was issued in February 2013. ORCR is currently in the process of implementing the final rules.

This Work Assignment 3-11 is a logical follow-on to Work Assignment 2-11 under contract EP-W-12-013. In addition to the two rules discussed above, ORCR is also working on another two rules that will add materials to the list of categorical non-waste fuels. On April 14, 2014, a proposed rule was signed titled Additions to List of Section 241.4 Categorical Non-Waste Fuels. This rule proposed to list the following as categorical non-waste fuels: 1) construction and demolition wood processed according to best management practices; 2) paper recycling residuals (including old corrugated cardboard); and 3) creosote treated railroad ties. ORCR is currently finalizing this rule. ORCR is also working on a rule in response to a petition requesting materials to be added to the list of categorical non-waste fuels. Both of these rules are being worked on simultaneously.

SCOPE OF THIS WORK ASSIGNMENT:

The purpose and scope is for the contractor to continue to provide technical support to EPA in further implementing the March, 2011 Final Rule as well as providing technical support for developing NHSM Part 241 guidance for state and EPA regulatory officials.

Project coordination, project communication, and outreach with guidance are also within the scope of this work assignment.

WORK STATEMENT:

Task 1. Work Plan, Progress Reports and Budget

Within twenty (20) days of receipt of this work assignment, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this Work Assignment shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html

As part of the monthly progress reports for this Work Assignment, the Contractor shall provide a summary of all data quality activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the COR.

Contractor travel is authorized under this Work Assignment. However, the contractor shall not budget for any travel at this point. Any travel will have to be authorized by the TOCOR in advance.

Deliverable(s) and Schedule:

Work Plan and Budget within allotted time frame identified above.

Task 2. NHSM Part 241 Guidance for State and EPA regulatory officials

Upon direction of the TOCOR, the contractor shall develop guidance for regional and state personnel. This guidance will be intended for:

- EPA Regional Air and RCRA permitting and enforcement officials
- State, interstate and local air agency permitting and enforcement officials
- Tribal officials

The purpose is to provide guidance so that implementing agencies for Clean Air Act section 112 and section 129 standards will be able to properly verify the appropriateness of the source's determinations under Part 241. The guidance will contain flow charts for the following: listed categorical fuels managed within the control of the generator, non-waste determinations, and processing and legitimacy criteria. The guidance will also discuss how to determine sufficient processing for fuels. Upon direction of the TOCOR, the contractor shall include additional elements that are needed in the guidance.

All work under this Task shall be initiated through a Technical Directive (TD). The contractor shall budget for approximately one (1) TDs under this Task.

| SCHEDULE OF DELIVERABLES | | |
|--|--|---|
| TASK NUMBER and DELIVERABLE | WORK ASSIGNMENT DUE DATES | |
| | DRAFT | FINAL |
| <i>Task 2: General Analytical Support</i> | | |
| Per each Technical Directive (TD) | Ten (10) Agency working days following contractor receipt of the TD. | Five (5) Agency working days following contractor receipt of all written comments on the draft. |
| <i>Task 3: Regional/State NHSM Training Guide</i> | | |
| Per each Technical Directive (TD) | Two (2) Agency working days following contractor receipt of the TD. | Five (5) Agency working days following contractor receipt of all written comments on the draft. |
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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-11 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| Base | | | Option Period Number 3 | | | | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: This amendment is to accept and approve the contractor's work plan and cost estimate dated 7/27/2015 with Level of Effort (LOE) of 343 hours and \$36,265.43 (b)(4) cost (b)(4) fee). The new ceilings are, LOE 1,486 hours and \$155,207.55 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approved ceiling without the approval of the Contracting Officer. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO (Max 2) 22 | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | LOE: 1,486 | | | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | 0 | | | | | | |
| | | | | | | | | | | |
| Total: | | | | 1,486 | | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | | LOE: | | | |
| Cumulative Approved: | | | | Cost/Fee: | | | LOE: | | | |
| Work Assignment Manager Name Jesse Miller | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number 703-308-1180 | | | |
| | | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: | | | |
| | | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | | FAX Number: | | | |

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|---|----------------|----------------------|--|----------------------------|---|---|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-12 | | | | |
| | | | | | | <input type="checkbox"/> Other <input type="checkbox"/> Amendment Number: | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name Haz. Waste Ex-Import Revisions | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW Task 1, Task 2, and Task 3 | | | | | |
| Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: The purpose of this amendment is to initiate Work Assignment(WA) 3-12. Phuc Phan is appointed as the work assignment manager (WAM) and Chris McMinimy as the alternate. WAM. The Level of Effort, (LOE) is in the amount of 198 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate as it relates to this request. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 198 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 198 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Phuc Phan | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div> | | | | | | Phone Number 703-306-1013 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div> | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div> | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature)</div> <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Date)</div> | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

Statement of Work

Project Title: Regulatory Impact Analysis (RIA) for EPA's Hazardous Waste Export-Import Revisions Rule
Contract No.: EP-W-12-013
Work Assignment No.: 3-12
Works Assignment Manger (WAM): Phuc Phan, Economist
EPA Office of Resource Conservation & Recovery (ORCR)
703-306-1013
Alt WAM: Chris McMinimy, Economist
EPA Office of Resource Conservation & Recovery (ORCR)
703-308-0105
Period of Performance: CO signature through April 29, 2016.

I. Introduction

EPA is revising hazardous waste export-import related requirements at 40 CFR Part 262, Part 263, Part 264, and Part 265, to achieve the following 3 goals: 1) be more consistent with OECD requirements, 2) allow electronic submittal of export notices and annual reports, and 3) enable electronic validation of hazardous waste export shipments. A description of each of these respective changes can be found below.

EPA currently regulates exports of hazardous waste under 40 CFR Part 262 Subparts E and H, depending on the waste type, the final destination country, and whether the waste will be disposed of or recycled. Regulations under Subpart H only apply to shipments of hazardous waste exported for the purpose of recovery to countries other than Canada or Mexico that belong to the Organization for Economic Cooperation and Development (OECD). The requirements under Subpart H are more stringent than the requirements under Subpart E because among other things, Subpart H requires that:

- 1) export shipments be accompanied by an OECD movement document, an international tracking document similar to a RCRA Hazardous Waste Manifest,
- 2) a contract or equivalent legal arrangements must be in place between the exporter and receiving facility before shipments occur,
- 3) the receiving facility must send a *Confirmation of Recovery*, which states that the received waste has been recovered in the method agreed upon in the contract, to the exporter, the exporting country and the importing country, and
- 4) if a waste export cannot be completed in accordance with the terms of the contract, and alternative arrangements cannot be made, then the exporter must ensure the waste is returned to the US within 90 days from the date the country of transit or import notifies EPA of the need to return the shipment.

EPA is proposing to revise the existing standards at Subpart E to more closely match the more stringent existing standards at Subpart H. EPA is making these changes in part due to a report by the Commission for Environmental Cooperation (CEC), a North American environmental intergovernmental organization, which found that significant amounts of RCRA hazardous waste spent lead-acid batteries (SLABs) were shipped in 2011 to 47 countries for which no record of consent from the receiving country can be found, and that significant discrepancies between EPA and Census Bureau figures for SLAB exports exist. EPA believes that applying the relevant requirements of Subpart H to all exports of hazardous waste will help to address the CEC report's findings. To minimize burden, EPA is considering proposing to allow use of the Canadian manifest in lieu of the OECD movement document for export shipments to Canada, as Canadian requirements currently require that a Canadian manifest accompany such shipments from the U.S. shipping site to the Canadian destination.

EPA is also proposing to allow electronic submittal of export notices and annual reports currently required by Subparts E and H. The goal of this change is to make the submittal and processing of export notices and annual reports more efficient for both EPA and the regulated community, thus reducing the burden of complying with RCRA.

Finally, EPA is proposing to require exporters of hazardous waste to electronically submit a short list of waste shipment data for each export shipment to the Automated Export System (AES), a joint venture between U.S. Customs and Border Protection (CBP), U.S. Census Bureau (Census), and other federal agencies. Submittal of this data will enable automated validation of the export shipment prior to its exit. Such validation will ensure the exporter's compliance with RCRA export requirements, providing immediate feedback to the exporter about any errors and returning an Internal Transaction Number (ITN) as confirmation of successful filing. In addition, the automated validation of electronically submitted hazardous waste export shipment data into AES will replace time-consuming reviews of paper documents by CBP port officers at the exit port.

II. Purpose and Scope of this Work Assignment to Add Additional Level of Effort

The purpose of this Work Assignment (WA) is to provide funding for the contractor to continue to respond to workgroup, Office of Policy, OEI, OMB, and public comments, and revising costs, economic impacts, benefits, small entity impacts, information collection request (ICR), and related technical and supporting analyses necessary to sustain the Agency's promulgation of the rule: "Hazardous Waste Export-Import Revisions."

This SOW also includes revising of impacts to small entities, and updating of impacts to minority and low-income communities (environmental justice), updating of unfunded mandates, and updating of all other Executive Orders and Acts pertinent to this action, as necessary due to comments.

Finally, this WA includes the preparation of emergency turnaround assessments, general supporting materials, briefings, general project coordination, and ongoing communication/outreach to the WAM/TOCOR.

III. Work Statement

Task 1. Work Plan, Progress Reports and Budget

Within twenty (20) days of receipt of this WA, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this WA shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html

As part of the monthly progress reports for this WA, the contractor shall provide a summary of all data collection and quality control activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the WAM/TOCOR.

Deliverable(s) and Schedule:

Work Plan and Budget within allotted time frame identified above.

Task 2: Programmatic Support

The contractor shall continue to be prepared to provide programmatic support in the area of short-term or quick turnaround technical assistance, analysis, and supporting documents to ORCR for the rule.

Under this task, the contractor shall develop and submit various general support documents and analyses directly or indirectly related to the rule. Examples of such documents/analyses may include, but not be limited to:

- cost or cost savings summary tables addressing impacts of one or more of the regulatory improvement areas;
- brief benefits assessments for one or more of the regulatory improvement areas;
- general or specific briefing packages;
- fact sheets, flow charts, or graphics;

The need for and number of such documents remains uncertain at the time of this WA. The WAM will provide a Technical Directive (TD) designed to clarify the need and scope of such document(s), as necessary. The contractor shall budget for approximately two (2) TDs under this Task.

Work under this task shall build upon the previous WA 2-08.

Deliverable(s) and Schedule:

| DELIVERABLES | DUE DATES |
|---|--|
| Development of quick-turnaround support documents and analyses related to the rule: To be defined in the TD (e.g., briefing package, fact sheet) | <u>Draft</u> : Three Agency working days from receipt of TD and all supporting information. <u>Final</u> : Three Agency working days from receipt of all written WAM comments on draft. |

Task 3: **Responding to Comments to Finalize the RIA**

Based on the work to complete the RIA for the proposed rule, EPA is expecting substantial comments from Office of Policy, OEI, OMB, and public comments, and might have to revise costs, economic impacts, benefits, small entity impacts, information collection request (ICR), and related technical and supporting analyses necessary to sustain the Agency's promulgation of the rule: "Hazardous Waste Export-Import Revisions" and may change the rule implementation date require revisions to the economic analysis, which will require more resources than anticipated in the scope of work submitted for the performance period from April 30, 2014 to April 29, 2015. These activities require more contractor assistance than the norm. Specifically, the Executive Order—Streamlining the Export/Import Process for America's Businesses— requires EPA to publish the final rule in the Federal Register by June of 2015. This means that EPA has to complete the final draft of the economic analysis no later than the beginning of February of 2015 in order to meet the Executive Order's deadline. Therefore, the completion of the economic analysis is expected to be delivered earlier than the normal allotted time. As such, the contractor with the assistance from the WAM/TOCOR will have employ more resources to accommodate EPA's timeline.

Work Assignment Form, (WebForms v1.0)

Work Assignment Form, (WebForms v1.0)

Statement of Work

Project Title: 2014 Export Annual Report and Import Manifest Data Entry to support Regulatory Impact Analysis (RIA) for EPA's Hazardous Waste Export-Import Revisions Rule

Contract No.: EP-W-12-013

Work Assignment No.: 3-12

Works Assignment Manger (WAM): Phuc Phan, Economist

Alt WAM: EPA Office of Resource Conservation & Recovery (ORCR)
703-306-1013
Chris McMinimy, Economist
EPA Office of Resource Conservation & Recovery (ORCR)
703-308-0105

Period of Performance: CO signature through April 29, 2016.

I. Introduction

EPA is revising hazardous waste export-import related requirements at 40 CFR Part 262, Part 263, Part 264, and Part 265, to achieve the following 3 goals: 1) be more consistent with OECD requirements, 2) allow electronic submittal of export notices and annual reports, and 3) enable electronic validation of hazardous waste export shipments. Under work assignment 3-12, the contractor completed the draft Regulatory Impact Analysis (RIA) for the proposed rule. The contractor relied on 2011 export annual report data and limited 2011 import manifest data for the proposed rule's RIA.

II. Purpose and Scope of this Work Assignment Amendment is to Add Additional Level of Effort

The purpose of this Work Assignment (WA) is to revise the approved work assignment for the contractor to compile key data from all individual export annual reports and individual import manifests for the year 2014 into an excel document. These data will then be used to update the Agency's RIA for the final rule: "Hazardous Waste Export-Import Revisions" under work assignment 3-12. The work assigned in this amendment builds upon the work already conducted under the existing work assignment 3-12 task 3.

III. Work Statement

Task 1. Work Plan, Progress Reports and Budget

Within twenty (20) days of receipt of this WA, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this WA shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html

As part of the monthly progress reports for this WA, the contractor shall provide a summary of all data collection and quality control activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the WAM/TOCOR.

Deliverable(s) and Schedule:

Work Plan and Budget within allotted time frame identified above.

Task 3: Data Entry

The contractor shall enter the data from all individual export annual reports and import manifests provided by TOCOR for the year 2014 into an excel document, using the "export and import data entry for 2014.xlsx" provided by the TOCOR.

The information to be entered must include whatever is listed in each individual export annual report and import manifest for the fields listed in the excel document provided by the TOCOR.

The contractor shall first provide EPA with a draft excel document containing the entered export data, no later than 8 weeks from receipt of the individual export annual reports from the TOCOR. The TOCOR shall provide corrections or comments on the export data no later than 2 weeks from receipt of the draft excel document. The contractor shall next provide EPA with a draft excel document containing the entered import data, no later than 12 weeks from receipt of the individual import manifests from the TOCOR. The TOCOR shall provide corrections or comments on the import data no later than 2 weeks from receipt of the draft excel document. Lastly, the contractor shall provide a final excel document containing both export and import data for 2014 that incorporates EPA's corrections or comments no later than 2 weeks from receipt of the TOCOR's corrections or comments concerning the import data.

Work under this task shall be used to prepare the RIA for the final rule under WA 3-12.

Deliverable(s) and Schedule:

| <u>DELIVERABLE</u> | <u>DUE DATE</u> |
|---|---|
| Provide draft excel document of 2014 export data using the “export and import data entry for 2014.xlsx” document provided by the TOCOR. | No later than 8 weeks from receipt of individual export annual reports. |
| Provide draft excel document of 2014 import data using the “export and import data entry for 2014.xlsx” document provided by the TOCOR. | No later than 12 weeks from receipt of individual export annual reports. |
| Provide final excel document of 2014 export and import data incorporating the TOCOR’s comments on the export and import data using the “export and import data entry for 2014.xlsx” document provided by the TOCOR. | No later than 2 weeks from receipt of TOCOR’s corrections or comments on the import data. |

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|--|----------------|----------------------|--|----------------------------|--|--|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-12 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2015 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | Haz. Waste Import/Export | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: This amendment is to approve and accept the contractor's work plan/cost Estimate dated 8/11/2015 with a level of effort of 430 hrs. and \$29,991.98 (b)(4) cost (b)(4) fee). The total LOE is now 628 hrs. and \$48,415.36 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approved ceilings without the approval of the Contracting Officer. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data | | | | | <input checked="" type="checkbox"/> Non-Superfund | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 628 | | | | |
| 04/30/2015 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 0 | | | | |
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| Total: | | | | | | 628 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Phuc Phan | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number 703-306-1013 | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: 703-605-0509 | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: 202-564-8316 | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: | | | | |

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|---|----------------|----------------------|--|----------------------------|--|--|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-12 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2015 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | Imports/Exports | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to appoint Chris McMinimy as the work assignment manager (WAM). | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 628 | | | | |
| 04/30/2015 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 0 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 628 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| Work Assignment Manager Name Chris McMinimy | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number 703-308-0105 | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: 703-605-0509 | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
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| _____ (Signature) (Date) | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: 202-564-8316 | | | | |
| _____ (Signature) (Date) | | | | | | FAX Number: | | | | |

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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-12 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000005 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | Import Export RIA | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to add additional level of effort (LOE) of 480 hours to this Work Assignment (WA). The total LOE for this WA is 1108. The statement of work is attached. The contractor shall submit a work plan and cost estimate as it relates to this request. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 1,108 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 1,108 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Chris McMinimy | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) _____ (Date) | | | | | | Phone Number 703-308-0105 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) _____ (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) _____ (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) _____ (Date) | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

Statement of Work

Project Title: 2015 Updates and Revisions to the Regulatory Impact Analysis (RIA) for EPA's Hazardous Waste Export-Import Revisions Rule

Contract No.: EP-W-12-013

Work Assignment No.: 3-12

Works Assignment Manger (WAM): Chris McMinimy, Economist

EPA Office of Resource Conservation & Recovery (ORCR)
703-308-0105

Alt WAM:

Period of Performance: CO signature through April 29, 2016.

I. Introduction

EPA is revising hazardous waste export-import related requirements at 40 CFR Part 262, Part 263, Part 264, and Part 265, to achieve the following 3 goals: 1) be more consistent with OECD requirements, 2) allow electronic submittal of export notices and annual reports, and 3) enable electronic validation of hazardous waste export shipments. Under work assignment 3-12, the contractor completed the draft Regulatory Impact Analysis (RIA) for the proposed rule. The contractor relied on 2011 export annual report data and limited 2011 import manifest data for the proposed rule's RIA. Under a previous amendment to work assignment 3-12, the contractor created an updated database using data from the 2014 export annual reports and import manifests.

II. Purpose and Scope of this Work Assignment Amendment is to Add Additional Level of Effort

The purpose of this amendment to the existing Work Assignment (WA) is to add approximately 480 hours of LOE for the purpose of updating the RIA and ICR to reflect the most recent available data. The work assigned in this amendment builds upon the work already conducted under the existing work assignment 3-12 and the previous amendment to work assignment 3-12.

III. Work Statement

Task 1. Work Plan, Progress Reports and Budget

Within twenty (20) days of receipt of this WA, the contractor shall deliver a work plan. This plan shall include a proposed level of effort, budget, schedule of tasks, and schedule of deliverables. A cost proposal shall accompany this work plan.

All data collection, assessment, and quality issues associated with this WA shall adhere to EPA data quality guidance and requirements, as established in EPA Order 5360.1A2, EPA Manual 5360.A1, and OSWER's and ORCR's Quality Management Plans. See: http://www.epa.gov/quality/qa_docs.html

As part of the monthly progress reports for this WA, the contractor shall provide a summary of all data collection and quality control activities conducted during each month.

No confidential business information (CBI) shall be collected or used under this Work Assignment. However, proprietary data may be used following written approval from the WAM/TOCOR.

Deliverable(s) and Schedule:

Work Plan and Budget within allotted time frame identified above.

Task 4: Update Universe to Finalize RIA

The contractor shall revise and update the RIA in order to reflect the most recent data collected under the previous amendment to work assignment 3-12. The contractor shall revise and resubmit the universe of potentially affected entities, assessment of costs and savings, assessment of benefits, and all other required analyses using the updated data. The specific nature of these updates will be further clarified by Technical Directive (TD) provided by the WAM.

Deliverable(s) and Schedule:

| <u>DELIVERABLE</u> | <u>DUE DATE</u> |
|---|---|
| Provide draft of updated RIA, with content and figures reflecting the most recent data. | No later than 5 weeks from CO signature. |
| Provide final updated RIA, with content and figures reflecting the most recent data. | No later than 5 weeks after receiving feedback on the draft of the updated RIA. |

Task 5: Update Information Collection Request

The contractor shall revise the ICR in order to reflect the most recent data concerning the universe of facilities that may be potentially affected by the proposed rule. Changes and additions to the rule preamble and text may necessitate additional revisions to the ICR by the contractor. The WAM will provide TD designed to clarify the focus and scope of the updates, as necessary.

Deliverable(s) and Schedule:

| <u>DELIVERABLE</u> | <u>DUE DATE</u> |
|-------------------------------|---|
| Provide draft of updated ICR. | No later than 5 weeks from CO signature. |
| Provide final updated ICR. | No later than 5 weeks after receiving feedback on the draft of the updated RIA. |

Work Assignment Form, (WebForms v1.0)

Work Assignment Form. (WebForms v1.0)

| | | | | | | | | | | |
|---|----------------|----------------------|--|----------------------------|---|---|-----------------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | | |
| | | | | | | <input type="checkbox"/> Other <input type="checkbox"/> Amendment Number: | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name Econ Support for CERCLA 108b | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: The purpose of this amendment is to initiate Work Assignment(WA)3-14. The level of effort (LOE) is in the amount of 465 hours. Scott Palmer is appointed as the work assignment manager (WAM) and Phuc Phan as alternate. WAM. The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request. | | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 465 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 465 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | | LOE: | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | | LOE: | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Scott Palmer | | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature) (Date)</div> | | | | | | | Phone Number 703-308-8621 | | | |
| | | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature) (Date)</div> | | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature) (Date)</div> | | | | | | | Phone Number: | | | |
| | | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="text-align: center;">(Signature) (Date)</div> | | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | | FAX Number: | | | |

Statement of Work
Work Assignment No. 3-14
EPA Contract #: EP-W-12-013

1. **TITLE:** CERCLA 108(b) – Economics Support for Financial Assurance Rule
2. **PERIOD OF PERFORMANCE:** Date of CO signature through April 30, 2016
3. **WORK ASSIGNMENT MANAGER:** **Scott Palmer, Ph.D.**
Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery

Mailing Address:
US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-308-8621
E-mail: palmer.scott@epa.gov

Alt WAM:

Phuc Phan
Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery

Mailing Address: Same as above
Phone: 703-306-1013
E-mail: phan.phuc@epa.gov

4. **BREIF BACKGROUND ON PROJECT AND PRIOR CONTRACT SUPPORT:**

USEPA has been involved in significant ongoing analyses needed for promulgation of financial assurance regulations under CERCLA, 108(b). Substantial prior work has already been completed under former Work Assignments (WA's) with Industrial Economics (IEc). This work has been conducted on an ongoing basis through the contract period of performance which ends on April 30, 2015.

Specific tasks that have already been conducted are thoroughly outlined in the Scopes of Work and Approved IEc Work Plans for WA #B-7, WA #1-14, and WA #2-14 of this contract, as well as other prior WA's associated with the CERCLA 108(b) Rulemaking.

5. STATEMENT OF WORK FOR WA #3-14:

This WA is being utilized to continue conducting ongoing economic analyses for the CERCLA 108(b) regulatory development process, and carry on with this work into Option Period 3 of this contract. This subject rulemaking continues to be conducted on an aggressive project schedule, which may merit much more work over the period of this work assignment request. In order to produce the analyses necessary to support rule development and all of the steps associated with the Action Development Process, much of this work may also have to be conducted on a fairly rapid turnaround.

There is a wide array of analyses needed for this rule, and this work assignment therefore seeks to accommodate this with a scope of work comprised of several broadly defined tasks. These tasks together seek to cover the full breadth of analyses needed to assess the regulatory and economic impacts for the rule (subject to the limits of available data and funding). Such tasks will include more immediate high priority analyses needed earlier in the over rulemaking schedule, versus longer term research needs (some of which will be identified as more decisions are made about the specific content and requirements to be set forth in the rule).

Lastly, the work to be performed for WA #3-14 shall take advantage of all prior work conducted for WA #B-7, WA #1-14, and WA #2-14, as well as any and all results generated for the CERCLA 108(b) rulemaking via other contract vehicles (such as related risk analyses developed by Research Triangle, Inc., etc.). Furthermore, work conducted under this Work Assignment shall be performed in concert with related tasks separately requested under WA# 3-19. All data, analyses, and findings generated to meet the SOW for WA# 3-14 and WA# 3-19 are to be shared and taken advantage of for the purposes of both work assignments, as appropriate and feasible.

[Note: Analyses of immediate need shall however represent typical contractor support services pertaining to regulatory impact analyses (RIA) necessary for rule writing and promulgation. As such, amendments may be added to this work assignment in order to continue and/or add similar types of contract services which may be needed on an ongoing basis over the duration of this rulemaking.]

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved work assignment, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM (and/or the Alternate WAM). The contractor shall maintain at least weekly communication with the EPA WAM and Alternate WAM in order to share any anticipated events which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the work assignment. The contractor shall also provide management oversight of the work assignment throughout its entire period of performance.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities achieved throughout the work assignment.

Task 2: Analyses Relevant to HLRIA and the Selection of Subclass(es) to be Regulated

The internal 108(b) Team for the Office of Resource Conservation and Recovery (ORCR) and Agency-level 108(b) Workgroup must select a subclass of facilities to be regulated under CERCLA 108(b), from within the Mining and Mineral Processing sectors. This process involves identifying which components of these sectors represent the “highest level of risk of injury” in accordance with the CERCLA 108(b) statute, and the analyses for this process have come to be referred to by the Acronym of HLRIA. To support this effort, the contractor has already conducted extensive analyses including for example:

- 1) Developing historical response cost estimates for CERCLA sites;
- 2) Collecting data on FA amounts already in place;
- 3) Conducting regressions to identify variables correlated with historical response costs; and
- 4) Developing spreadsheets to highlight the risks according to commodity groupings.

Results from these analyses have been documented and organized into spreadsheets, graphs, histograms, and summary reports for the purpose of packaging and presenting these findings for the project team and workgroup. This information is also being organized together with other pertinent risk-related data for purposes of selecting a final subclass of facilities to be regulated under this subject rule.

The purpose of Task 2 of this new WA #3-14, calls for finalizing the following prior already underway for WA #2-14. For example, supplemental analyses are still underway through the end of the current performance period under Task 2 of WA 2-#14. These analyses have been designed to fill gaps and help address concerns expressed by 108(b) team and workgroup members. Some of the work under Tasks 2-I and 2-II for WA 1-#14 (as described below), will need to be completed in option period 3 under WA #3-14:

- I. Based on the analyses conducted so far, spreadsheets prepared for the HLRIA process reveal results that stand out as atypical relative to the results overall. There are specific sites within different commodity groups that need to be investigated further. For example, there would appear to be a particular aluminum mine and/or processor where there was an uncharacteristically high natural resource damage (NRD) settlement. However, upper management has decided that there is insufficient data to select a “HLRIA universe” based on “commodity” groupings. Therefore, work from this point forward will focus on substantiating this position that there are insufficient distinctions in the data to use “the type of commodity that was mined or processed” for determining whether they pose a “higher level of risk of injury”. To finalize this task, the contractor will prepare written documentation formalizing the HLRIA decision and associated reasoning. Also, for any exception in the data that appear as outliers and are contradictory, the contractor shall document and explain such “outliers” as feasible.
- II. Current results reveal substantial differences among mines vs. processors, regardless of their associated commodity group. These differences need to be researched and documented in a thorough summary white-paper that talks about historical changes and past versus current industrial practices, market conditions, regulatory requirements, and environmental controls, for all of the commodity groups being evaluated as part of our HLRIA analyses. This Task is being requested as a precursor to the SOW outlined

separately under Task 5 of WA# 2-19. These analyses are focused more on helping to more immediately assist with the HLRIA effort to determine the appropriate subclasses to include within the rule. The minor preliminary results from this task are to also be taken advantage of in fulfilling the SOW for WA #2-19 & WA #3-19.

III. Lastly, the contractor has more recently assisted in developing summary reports highlighting specific components of the Mining and Mineral Processing sectors for potential exclusion from FA requirements under CERCLA 108(b). These reports characterize distinct subsets of the overall sector and establish their relevant risks to be below those that present a “higher level of risk of injury”. These reports include:

- 1) Overview of Placer Mines (exclusion of Placers that don’t use hazardous substances?);
- 2) Overview of Exploratory Mining (Mines that are solely exploratory to be excluded?);
- 3) Overview of Gaseous Air Emission Typical at Mines and Processors (for information)
- 4) Overview of Lead Smelters (status assessment).

Notes:

- All of the work for the above tasks under this new WA #3-14 shall be completed within the first 2 months of Option Period 3, to allow the contractor to move on to other analyses affecting the critical path of the overall project.
- The total amount of time and workload necessary to finalize all of the above tasks and related analyses are together anticipated not to exceed more than 1/5th of the overall LOE allotted for this WA.

Task 3(a) & 3(b): Data Management and Modification Needs

Both of the following tasks were called for in their entirety under WA #2-14 and are to be completed under WA #3-14.

Task 3(a): Quality Control and Reconciliation of CERCLA 108(b) Data

Substantial quantities of CERCLA 108(b) related data have been collected since the inception of this project. Because many updates, revisions, and modifications of this data have taken place, Task 3(a) calls for a review of all relevant data on record in order to ensure that only the latest versions of data are used for all future analyses.

This task shall involve establishing a retrospective timeline for prior iterations of data collection efforts for all types of relevant data. Relevant data shall include for example; CERCLIS data, Office of Enforcement and Compliance Assurance (OECA) enforcement and settlements data, GIS locational data, natural resource damage (NRD) settlement amounts, ATSDR data, amounts of existing financial assurance, data extracted from CERCLA site summaries, etc. For example, elements of data to be covered in this documentation effort shall include; collection dates, original data sources, electronic storage information including database locations and file names, and data definitions, as well as notes and summary descriptions. Furthermore, this task shall encompass all relevant datasets developed to date for this rulemaking, including data compiled by other outside contractors, and EPA team members.

Please note that a very similar yet distinct task is separately being conducted through a separate contract. This separate contract effort will be used to prepare a comprehensive compilation of data collected to date and to then package this data for ongoing processing by EPA. Task 3(a) will commence at the direction of the WAM, once the final deliverables are received from this separate contractor and it makes sense to proceed with this task. At such time, the WAM will provide all such data, and/or the contact information otherwise needed to ensure that the contractor can fulfill this part of the subject scope of work.

Once this initial quality control and documentation phase is complete, and all project data is in hand, all such data will be uploaded and linked as feasible within a master ACCESS database or associated databases. Once the quality control and reconciliation of existing data is finalized and updated in ACCESS, all such files will be distributed to ORCR, as well as all contractors affiliated with research for the rule, to help ensure that everyone is working with the same data.

Task 3(b): Review, Update, and Modification of Prior Economic Data and Analyses

Another priority for further analyses is to solicit review and concurrence, both internal and external to ORCR, on the economics related data collection, analyses, methodologies, statistics, and findings achieved to date. The OSWER Office of Superfund Remediation and Technology Innovation (OSRTI) has made a commitment to increase their involvement and the amount of staff resources they make available to provide their expert review of our analyses. The Agency Workgroup for the rule has also become more involved with the review of project materials. As such, this task calls for ensuring that there is sufficient contract support for analytical briefings that may be necessary for stakeholders such as OSRTI, the Agency Workgroup, and OECA. As such, the contractor shall budget for one face to face meeting in DC in order to participate in case such a need arises..

Based on potential new information and/or input from the Agency Workgroup, modifications to prior analyses may be necessary. If so, such changes and/or updates shall also be conducted under this Task. The contractor should assume that they will need to be available in order to field questions about their chosen assumptions, methods, and findings covering the array of work conducted to date. Any responses shall be prepared by the contractor and provided to the WAM for distribution. EPA also asks that pertinent contractor staff be made available by phone in order to readily resolve questions and facilitate necessary solutions when and where feasible.

[Note: The total amount of time and workload necessary for responding to questions and comments as well as subsequent modifications to prior analyses should be assumed to not exceed more than 10% of the overall allotted LOE estimated for this WA.]

Task 4: Assessment of Cost Estimation Model

A substantial data collection effort has taken place via contract under the direction of the Superfund program, in order to glean information on the actual and/or projected remedial costs and amounts of FA at a large number of mining facilities across the US. This work was conducted by Jim

Kuipers, who is a mining expert with many years of experience in this field. Under Task 4, the contractor shall conduct a review of the data that has been collected to date, as well as the associated assumptions and risk factors that were used to generate unit cost estimates for a variety of mining related risk features typically present at such sites.

All data spreadsheets and associated analytical documentation shall be provided to the contractor, and they may coordinate directly with Kuipers in order to better understand these materials. A final report shall be submitted by the contractor with their review findings and recommendations. In addition, the contractors shall provide their professional view as to the sufficiency of the data for purposes of making rough (yet defensible) projections for the amount of FA that may be required at individual sites subject to the CERCLA 108(b) rule. Accordingly, the contractors shall work together to make any necessary changes to the subject databases so that it may be used to generate such estimates if feasible.

[Note: The total amount of time and workload necessary for responding to questions and comments as well as subsequent modifications to prior analyses should be assumed to not exceed more than 1/5th of the overall allotted LOE estimated for this WA.]

Task 5: Draft Assessment of Economic and Regulatory Impacts

Under this task, the contractor shall first reassess and familiarize themselves with the current status and key features of the draft rule. The contractor shall also identify critical gaps and remaining rule features/decisions yet to be resolved. This progress assessment shall be accompanied by recommendations for next steps and analyses of highest priority for estimating the regulatory impacts associated with the rule. This will be used to direct future work assignments and establish better estimates of the costs and benefits of the rule. Such work may include the following analyses, as previously identified under WA #B-7, WA #1-14, and WA #2-14.

The following components of Task 5 were also included as Task 4 of WA #2-14, and are ongoing, as regular components of conducting a Regulatory Impact Analysis and the Regulatory Development Process. As such, not all of these tasks may be accomplished with the level of funding currently available for WA #3-14. Furthermore, not all features of the rule may be developed, thereby limiting the contractor's ability to complete all elements of Task 5 as outlined below.

Consequently, the contractor is requested to focus first on developing information for each of the following components of work, sufficient to develop preliminary estimates that can be used for Small Business analyses (specifically discussed in Item II below). The current schedule for promulgation of the Proposed CERCLA 108(b) Rule call for the Small Business Regulatory Enforcement Fairness Act (SBREFA) process to commence May 1st, 2015 (the same start date for Option Period 3). The SBREFA process is furthermore slated to continue for approximately 8 months and end in late December. As such, available funding for this Task should first be dedicated to preliminary RIA analyses sufficient for SBREFA purposes.

- I. Utilization of newly established definitions for mining and processing and types of facilities to be excluded, in concert with alternative potential commodity subclasses, to establish a preliminary listing of currently operating facilities likely to be regulated under these definitions.

- II. Assembling preliminary draft estimates of the monetary costs (and potential tradeoffs and benefits) associated with all alternative Financial Assurance mechanisms being considered, so that a Draft Economic Impact Analysis of the costs and benefits of the can be prepared in time to be available for in time for commencement of the SBA Review (SBAR Panel) Process related to the Regulatory Flexibility analyses for the rule. [Notes: Such dates are projected and may change. Furthermore, improved cost estimates will likely be needed, following ongoing refinement of the final financial assurance requirements chosen for the rule.]
- III. Drawing on Industry Profiles and additional firm level data (including sales, revenues, number of employees, etc.), the contractor shall also conduct an analysis of “small entity” impacts associated with the proposed rule, in support of the necessary Reg. Flex. analysis and potential convening of SBAR Panel.
- IV. Selection of Fixed Financial Assurance amounts that can be used for a Fixed FA Option under the rule. An approach and supporting arguments are to be established in cooperation with the Agency, for the selection of Fixed FA amounts, on the basis of commodity categories currently being identified by EPA. It is assumed that the selection of such amounts are to be based on Historic Response Cost estimates and Existing FA data, as well as associated findings from Statistical Regressions that have already been (or are concurrently being) collected/conducted.
- V. Formulation of an approach and supporting arguments are also to be established in cooperation with the Agency, for the selection of candidate approaches that would allow for “Adjustments” to the Fixed FA targets. Such an approach would be used to allow Fixed FA amounts to be tailored to accommodate for specific site features/characteristics, thereby allowing a more equitable amount to be established for certain facilities. For example, such a scheme could thereby allow for higher vs. lower adjusted FA amounts at facilities depending upon whether their respective site characteristics are or are not shown to be correlated with higher liability risks and response costs. Such an approach will require the identification of variables shown to be correlated with historical response cost estimates and existing FA amounts, as well as other potential dependent variables. Such adjustments are likely to be based on geologic, geographic, and/or process/management characteristics at any given facility (e.g. adjustments allowed for variations in disturbed acreage and proximity to surface water, etc... across facilities features). As such, independent variables of interest include, but are not limited to, Disturbed Acreage, Depth to Groundwater, Distance to Surface Water, Type of Commodity, On-site Processes (heap leach / no heap leach...), Pro-environmental Management Traits (ISO certification, ...), etc.
- VI. Derivation of draft estimates of the costs attributable to the FA amounts identified above. The costs of attaining FA are to be estimated by utilizing the amounts from 1) and 2) above, along with all data and analytical findings developed to date (e.g. Hist. Resp. Cost estimates, Cost of Mechanisms, Regression findings, Existing FA amounts already in place, Identified HRM Facilities to be Regulated universe and their respective financial data, Cost of Financial Instruments, Discounting Findings, etc.).

[NOTE: Much of the work to be conducted under Task 5 will be dependent upon the results of concurrent decision making and analyses that may be underway or ongoing. Therefore, portions of the work under Task 5 may need to wait until EPA is able to issue a Technical Directive.]

6. **CONTRACTOR QA AND DATA DELIVERABLE REQUIREMENTS**

The contractor shall comply with all applicable requirements of the contract, including compliance with all quality-assurance standards, provision of monthly invoices detailing progress and for notifying the WAM of the status of remaining funds, and other such requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition, the contractor shall make use of the following in developing the appropriate QA/QC requirements: *Guidance for Data Quality Objectives* (EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>. Furthermore, all data and supporting documents used in the performance of this contract and all associated analyses shall be provided to EPA at the completion of the work, as well as at any such time that it is requested by the WAM or Alt. WAM.

7. **OVERALL SCHEDULE FOR DELIVERABLES**

| Task and Deliverable for WA # 3-14 | Estimated Delivery (days include weekdays and weekends) |
|---|---|
| <u>Task 1 – Workplan and Budget Management</u> <u>Deliverable 1:</u> Workplan and Budget | 20 days after receipt of the approved work assignment. |
| <u>Task 2: HLRIA Analyses & Selection of Subclass(es)</u> <u>Draft Deliverable 2-I:</u> Case Studies for Data Outliers <u>Draft Deliverable 2-II:</u> White Paper on Mines vs. Processors <u>Draft Deliverable 3-III:</u> White Papers for HLRIA Decision | April 30 th , 2015 April 30 th , 2015 21 days after Work Plan Approval (All final deliverable due within 7 days of WAM comments on Drafts.) |
| <u>Task 3: Data Management and Modification Needs</u> <u>Deliverable 3(a):</u> Submission of Reconciled Access Database with latest 108(b) data compiled for future ongoing analyses <u>Deliverable 3(b):</u> Modifications to Prior Analyses | 28 days after Work Plan Approval Ongoing task – no set deliverables required. Modification to earlier analyses will be documented in Monthly Progress Reports. (All current versions of Access Database updates are to be provided upon request.) |

| | |
|--|--|
| <p><u>Task 4: Assessment of Cost Estimation Model (CEM)</u></p> <p><u>Deliverables:</u></p> <ul style="list-style-type: none"> • Draft Assessment Report • Final Assessment Report • Modification of Spreadsheets & Associated Unit Cost Estimates | <ul style="list-style-type: none"> • 21 days after Work Plan Approval • 7 days after WAM comments • 7 days after WAM comments |
| <p><u>Task 5 – Regulatory Impact Analyses related work</u></p> <p><u>Draft Deliverable 5: Progress Assessment and Next Steps</u></p> <p><u>Other possible Analyses as requested and feasible</u></p> <p><u>Deliverable 5-I:</u> Listing of Currently Operating Facilities, likely to subject to rule in accordance with final decisions regarding HLRIA, as well as necessary definitions for mines and processors</p> <p><u>Deliverable 5-II:</u> Draft RIA Analyses – early estimates of comprehensive cost impacts of the rule in accordance with Exec. Order 12866 (needed for SBREFA & SBAR Process.)</p> <p><u>Deliverable 5-III:</u> Draft SBREFA Analyses to Support the SBREFA & SBAR Panel Process</p> <p><u>Deliverable 5-IV & 5-V:</u> Selection of Options for Fixed FA Adjustments</p> <p><u>Deliverable 5-VI:</u> Draft Estimates of the Costs of selected FA amounts (including cost of instruments and collateral, etc...)</p> | <p>Within 14 days of above requested analytical modifications, or 15 days after receipt of TD with CO Signature</p> <p>28 Days after receipt of TD with CO Signature</p> <p>28 Days after receipt of TD with CO Signature</p> <p>28 Days after receipt of TD with CO Signature</p> <p>28 Days after receipt of TD with CO Signature</p> <p>28 Days after receipt of TD with CO Signature</p> <p>(All final deliverable due within 7 days of WAM comments on Drafts) (Schedules for project milestones such as the SBAR Panel Process are subject to change.)</p> |

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|---|----------------|--|-------------------------------|--|----------------------------|--|--|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001 | |
| Contract Number EP-W-12-013 | | Contract Period 04/30/2012 To 04/29/2016 | | Title of Work Assignment/SF Site Name | | | |
| Base | | Option Period Number 3 | | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | Specify Section and paragraph of Contract SOW | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | |
| Comments: The purpose of this amendment is to appoints Richard Benware as the work assignment manager (WAM). In addition, approves the contractor's work plan/cost estimate dated 5/20/15 with Level of Effort (LOE) of 465 hours and \$49,240.77 ((b)(4)) cost ((b)(4)) fee). The contractor is not authorized to go over the approved ceiling without approval from the Contracting Officer. | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | |
| SFO 22 (Max 2) | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) (Cents) Site/Project (Max 8) Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | |
| Contract Period: 04/30/2012 To 04/29/2016 | | Cost/Fee: | | LOE: 465 | | | |
| This Action: | | | | 0 | | | |
| Total: | | | | 465 | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | |
| Contractor WP Dated: | | Cost/Fee: | | LOE: | | | |
| Cumulative Approved: | | Cost/Fee: | | LOE: | | | |
| Work Assignment Manager Name Richard Benware | | | | | | Branch/Mail Code: | |
| _____ (Signature) (Date) | | | | | | Phone Number 703-308-0436 | |
| | | | | | | FAX Number: | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | |
| | | | | | | FAX Number: 703-308-7903 | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | |
| _____ (Signature) (Date) | | | | | | Phone Number: | |
| | | | | | | FAX Number: | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | |
| | | | | | | FAX Number: | |

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|--|----------------|----------------------|--|----------------------------|--|--|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | CERCLA 108(b) Econ Supp | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to add additional level of effort (LOE) in the amount of 1104 hours for on-going support to tasks 2-5 under this work assignment. The total LOE for the work assignment is now 1569 hours. The statement of work is attached. The contractor shall submit a work plan/cost estimate in response to this request. | | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 1,569 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 1,569 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Richard Benware | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number 703-308-0436 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

Statement of Work
Work Assignment No. 3-14
EPA Contract #: EP-W-12-013

1. **TITLE: CERCLA 108(b) – Economics Support for Financial Assurance Rule**

2. **PERIOD OF PERFORMANCE:** Date of CO signature through April 29, 2016

3. **WORK ASSIGNMENT MANAGER:**

WAM:

Richard Benware

Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery

Mailing Address:

US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-308-0436

E-mail: Benware.Richard@epa.gov

Alt WAM

Phuc Phan

Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery

Mailing Address: Same as above

Phone: 703-306-1013

E-mail: phan.phuc@epa.gov

4. **BREIF BACKGROUND ON PROJECT AND PRIOR CONTRACT SUPPORT:**

US EPA has been involved in significant ongoing analyses needed for promulgation of financial assurance regulations under CERCLA, 108(b). Substantial prior work has already been completed under prior Work Assignments (WA's) with Industrial Economics (IEc). This work has been conducted on an on-going basis through the contract period of performance, which ends on April 30, 2015.

Specific tasks that have already been conducted are thoroughly outlined in the Scopes of Work and Approved IEc Work Plans for WA #B-7, WA #1-14, and WA #2-14 of this contract, as well as other prior WA's associated with the CERCLA 108(b) Rulemaking.

5. **STATEMENT OF WORK FOR WA #3-14:**

This WA is being utilized to continue conducting on-going economic analyses for the CERCLA 108(b) regulatory development process, and continue with this work into Option Period 3 of this contract. This subject rulemaking continues to be conducted on an aggressive project schedule, which may merit much more work over the period of this WA request. In order to produce the analyses necessary to support the rule development and all of the steps associated with the Action Development Process, much of this work may also have to be conducted on a fairly rapid turnaround.

There is a wide array of analyses needed for this rule, and this WA, therefore, seeks to accommodate this with a scope of work comprised of several broadly defined tasks. These tasks together seek to cover the full breadth of analyses needed to assess the regulatory and economic impacts for the rule (subject to the limits of available data and funding). Such tasks will include more immediate high priority analyses needed earlier in the over rulemaking schedule, versus longer term research needs (some of which will be identified as more decisions are made about the specific content and requirements to be set forth in the rule).

Lastly, the work to be performed for WA #3-14 shall take advantage of all prior work conducted for WA #B-7, WA #1-14, and WA #2-14, as well as any and all results generated for the CERCLA 108(b) rulemaking via other contract vehicles (such as related risk analyses developed by Research Triangle, Inc., etc.). Furthermore, work conducted under this WA shall be performed in concert with related tasks separately requested under WA# 3-19. All data, analyses, and findings generated to meet the SOW for WA# 3-14 and WA# 3-19 are to be shared and taken advantage of for the purposes of both work assignments, as appropriate and feasible.

[Note: Analyses of immediate need shall, however, represent typical contractor support services pertaining to regulatory impact analyses (RIA) necessary for rule writing and promulgation. As such, amendments may be added to this WA in order to continue and/or add similar types of contract services which may be needed on an on-going basis over the duration of this rulemaking.]

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved WA, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM (and/or the Alternate WAM). The contractor shall maintain at least weekly communication with the EPA WAM and Alternate WAM in order to share any anticipated events, which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the WA. The contractor shall also provide management oversight of the WA throughout its entire period of performance.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities achieved throughout the WA.

Task 2: Analyses Relevant to HLRIA and the Selection of Subclass(es) to be Regulated

No modifications to this task. The contractor shall complete this task as defined in the (approved?) WA for May 1, 2015.

Task 3(a) & 3(b): Data Management and Modification Needs

Both of the following tasks were entirely included under WA #2-14 and are to be completed under WA #3-14.

Task 3(a): Quality Control and Reconciliation of CERCLA 108(b) Data

Substantial quantities of CERCLA 108(b) related data have been collected since the inception of this project. Because many updates, revisions, and modifications of this data have taken place, Task 3(a) calls for a review of all relevant data on record in order to ensure that only the suggested data are used for all future analyses.

This task shall involve establishing a retrospective timeline for prior iterations of data collection efforts for all types of relevant data. Relevant data shall include CERCLIS data, Office of Enforcement and Compliance Assurance (OECA) enforcement and settlements data, GIS locational data, natural resource damage (NRD) settlement amounts, ATSDR data, amounts of existing financial assurance, data extracted from CERCLA site summaries, corporate ownership data, credit and financial data, etc. For example, elements of data to be covered in this documentation effort shall include collection dates, original data sources, electronic storage information specifying database locations and file names, and data definitions, as well as notes and summary descriptions. Furthermore, this task shall encompass all relevant datasets developed to date for this rulemaking, including data compiled by other outside contractors, and EPA team members.

Please note that a very similar, yet distinct task is separately being conducted through a separate contract. This separate contract effort will be used to prepare a comprehensive compilation of data collected to date and to then package this data for on-going processing by EPA. Task 3(a) will commence at the direction of the WAM, once the final deliverables are received from this separate contractor and it makes sense to proceed with this task. At such time, the WAM will provide all such data, and/or the contact information otherwise needed to ensure that the contractor can fulfill this part of the subject scope of work.

Once this initial quality control and documentation phase is complete, and all project data are in hand, all such data will be uploaded and linked as feasible within a master ACCESS database or associated databases in a final, proposed rule RIA version. A memorandum will be submitted with these databases discussing the sources and/or collection methods of these data. The purpose of this memorandum is for incorporation into the proposed rule RIA as an appendix under task 5. Where data were collected by EPA or other contractors, the contractor will coordinate with these parties to avoid duplication of effort. Once the quality control and reconciliation of existing data are finalized and updated in ACCESS, all such files will be delivered to the WAM for distribution to the workgroup, as well as all contractors affiliated with research for the rule, to help ensure that everyone is working with the same data.

Task 3(b): Review, Update, and Modification of Prior Economic Data and Analyses

Another priority for further analyses is to solicit review and concurrence, both internal and external to ORCR, on the economics related data collection, analyses, methodologies, statistics, and findings achieved to date (e.g., equations for the representation of financial assurance instruments). The OSWER Office of Superfund Remediation and Technology Innovation (OSRTI) has made a commitment to increase their involvement and the amount of staff resources they make available to provide their expert review of our analyses. The Agency Workgroup for the rule has also become more involved with the review of project materials. As such, this task calls for ensuring that there is sufficient contract support for analytical briefings that may be necessary for stakeholders, such as OSRTI, the Agency Workgroup, and OECA. As such, the contractor shall budget for one face to face meeting in DC in order to participate in case such a need arises.

Based on potential new information and/or input from the Agency Workgroup, modifications to prior analyses may be necessary. If so, such changes and/or updates shall also be conducted under this Task. The contractor should assume that they will need to be available in order to field questions about their chosen assumptions, methods, and findings covering the array of work conducted to date. Any comments shall be made by the contractor and provided it to the WAM for distribution. EPA also asks that pertinent contractor staff be made available by phone in order to readily resolve questions and facilitate necessary solutions when and where feasible.

[Note: The total amount of time and workload necessary for responding to questions and comments, as well as subsequent modifications to prior analyses should be assumed to not exceed more than 10% of the overall allotted LOE estimated for this WA.]

Task 4: Assessment of Financial Assurance Amounts

The following tasks are to be completed by the contractor and whenever necessary, the contractor shall utilize an expert(s) in mining operations, mine reclamation and closure, and/or mine remediation for their expertise.

Task 4(a): Statistical Analysis and Assessment of the Cost Estimation Model

A substantial data collection effort has taken place via contract under the direction of the Superfund program, in order to glean information on the actual and/or projected remedial costs and amounts of FA at a large number of mining facilities across the US. This work has been conducted by Jim Kuipers, who is a mining expert with many years of experience in this field. Under Task 4, the contractor shall conduct a review of the data that have been collected to date, as well as the associated assumptions and risk factors that were used to generate unit cost estimates for a variety of mining related risk features typically present at such sites.

All data spreadsheets and associated analytical documentation shall be provided to the contractor, and they may coordinate directly with Kuipers in order to better understand these materials. A final memorandum shall be submitted by the contractor with their review findings and recommendations. In addition, the contractors shall provide their professional view as to the sufficiency of the data for purposes of making rough (yet defensible)

projections for the amount of FA that may be required at individual sites subject to the CERCLA 108(b) rule. Accordingly, the contractors shall work together to make any necessary changes to the subject databases so that it may be used to generate such estimates if feasible. The contractor shall develop, test, and implement the chosen methodologies to apply the cost estimation method CEM and the CEM data to the “to be regulated universe” of CERCLA 108(b) rule and the RIA for the rule.

Task 4(b): Analytical Support for Financial Assurance Amounts at Non-Major Mines

The Cost Estimation Model discussed in Task 4(a) above was designed to apply to only major mines, mines that cover over 20 acres. The contractor will further support the development of FA amounts for non-major mines, mines that cover fewer than 20 acres. This effort may include analysis of thresholds, where some of these mines would choose to exit the market, comparison of non-major mines to the major mines examined in the CEM of Task 4(a), and other analyses of levels of FA. Such tasks will be initiated upon receipt of technical direction (TD) from the WAM.

[Note: The total amount of time and workload necessary for responding to questions and comments, as well as subsequent modifications to prior analyses should be assumed to not exceed more than 1/4th of the overall allotted LOE estimated for this WA.]

Task 5: Draft Assessment of Economic and Regulatory Impacts

Under this task, the contractor shall first reassess and familiarize themselves with the current status and key features of the draft rule. The contractor shall also identify critical gaps, remaining rule features/decisions yet to be resolved, and regulatory options. The contractor shall list these gaps, decisions, and options in a table submitted to the WAM. This table will be regularly provided to the workgroup, updated, and shared with the contractor by the WAM in order to convey information necessary to the completion of the RIA.

Prior to commencing the writing of the RIA, the contractor shall provide a draft outline of the chapters, sections, subsections, and appendices to the WAM for review. The contractor shall endeavor to follow the outline and comments when completing the RIA, but may deviate when necessary. At a minimum, the RIA shall contain the following chapters and/or sections:

- Executive Summary
- Background and Need for Regulation
- Hardrock Mining Regulated Universe
- Monetized and Qualitative Benefits
- Costs of Regulatory Options
- Transfers to Third Parties
- Executive Orders and Other Analyses
- References (if necessary)
- Appendices

The WAM shall initiate the writing of each chapter, section, subsection, or appendix via technical direction. Upon completion of each segment, the contractor shall deliver the Microsoft Word draft,

and any underlying spreadsheets to the WAM, who will have the opportunity to provide comments to the contractor. These comments shall be incorporated into a revised draft. To the extent practicable, in writing these segments the contractor shall:

- Check all grammar and spelling
- Attach a table of contents for that segment
- Attach a list of acronyms for that segment
- Include web links for all freely available references, or where web links are not available, deliver electronic copies to the WAM
- Link all tables to underlying spreadsheets and perform QA/QC on those spreadsheets
- Link all Excel tables in the RIA, particularly showing all the critical steps and assumptions (preferably on the same page) used to calculate the results. Tables and/or surrounding text should include formulas and all relevant information, so the reader can follow step by step.
- Comply with all relevant statutes, executive orders, and guidance

Upon completion of all segments of the RIA, the contractor shall use each section's attached table of contents and acronyms to create the final front-matter of the RIA, which shall also include a cover page, acknowledgements, and any other necessary materials. A completed draft RIA will be circulated a minimum of three separate times by the WAM (once each to EPA management, the regulatory workgroup, and OMB). Each time, the WAM will provide all comments received to the contractor, and the contractor will update the draft to incorporate these comments. The contractor shall also maintain a track-changes and clean version of the OMB review draft for publication to the docket.

[NOTE: Much of the work to be conducted under Task 5 will be dependent upon the results of concurrent decision making and analyses that may be underway or ongoing. Therefore, portions of the work under Task 5 will need to wait until EPA is able to issue a Technical Directive (TD).]

Task 6: Regulatory Information Collection Request (ICR) Support

Under this task, the contractor shall engage in any analyses, consultation, or meetings necessary to complete the regulatory ICR by having separate columns specifying the burden hours and operating and maintenance costs associated with each provision in the cost chapter. Upon technical direction, the WAM may request that an ICR documenting the paperwork burdens of the proposed regulation be completed as part of the RIA.

6. CONTRACTOR QA AND DATA DELIVERABLE REQUIREMENTS

The contractor shall comply with all applicable requirements of the contract, including compliance with all QA standards, provision of monthly invoices detailing progress and for notifying the WAM of the status of remaining funds, and other such requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition, the contractor shall make use of the following in developing the appropriate QA/QC requirements: *Guidance for Data Quality Objectives* (EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>. Furthermore, all data and supporting documents used in the performance of this contract and all associated analyses shall

be provided to EPA at the completion of the work, as well as at any such time that it is requested by the WAM or Alt. WAM.

7. OVERALL SCHEDULE FOR DELIVERABLES

| Task and Deliverable for WA # 3-14 | Estimated Delivery (days include weekdays and weekends) |
|---|--|
| <u>Task 1 – Workplan and Budget Management</u> <u>Deliverable 1:</u> Workplan and Budget | 20 days after receipt of the approved work assignment. |
| <u>Task 2: HLRIA Analyses & Selection of Subclass(es)</u> <u>Draft Deliverable 2-I:</u> Case Studies for Data Outliers <u>Draft Deliverable 2-II:</u> White Paper on Mines vs. Processors <u>Draft Deliverable 3-III:</u> White Papers for HLRIA Decision | April 30 th , 2015 April 30 th , 2015 21 days after Work Plan Approval (All final deliverable due within 7 days of WAM comments on Drafts.) |
| <u>Task 3: Data Management and Modification Needs</u> <u>Deliverable 3(a):</u> Submission of Reconciled Access Database with latest 108(b) data compiled for future ongoing analyses <u>Deliverable 3(b):</u> Modifications to Prior Analyses | 28 days after Work Plan Approval On-going task – no set deliverables required. Modification to earlier analyses will be documented in Monthly Progress Reports. (All current versions of Access Database updates are to be provided upon request.) |
| <u>Task 4: Assessment of Financial Assurance Amounts</u> <u>Deliverable 4(a):</u> <ul style="list-style-type: none"> • Draft Assessment Report • Final Assessment Report • Modification of Spreadsheets & Associated Unit Cost Estimates <u>Deliverable 4(b):</u> <ul style="list-style-type: none"> • <u>Draft Assessment Report</u> • <u>Final Assessment Report</u> • <u>Modification of Spreadsheets & Associated Unit Cost Estimates</u> | <ul style="list-style-type: none"> • 28 days after Work Plan Approval • 7 days after WAM comments • 7 days after WAM comments • 28 days after Work Plan Approval • 7 days after WAM comments • 7 days after WAM comments |

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|---|--|
| <p><u>Task 5 – Economic analysis related work</u></p> <ul style="list-style-type: none"> • Progress Assessment and Critical Gaps Table • Draft RIA Outline • Draft RIA Chapter/Section/Subsection with underlying tables/spreadsheets • Revised underlying tables/spreadsheets • Revised RIA Chapter/Section/Subsection | <ul style="list-style-type: none"> • 7 days after work plan approval • 14 days after work plan approval • 28 days after TD receipt • 7 days after WAM comments • 14 days after WAM comments |
| <p><u>Task 6 – Regulatory Information Collection Request (ICR) Support</u></p> <p><u>Draft Deliverable 6: Draft Burden Estimates</u></p> | <ul style="list-style-type: none"> • 14 days after TD receipt |

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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | CERCLA 108(b) Economics | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: This amendment accept and approve the contractor's work plan/cost estimate dated 07/23/2015 with a Level of Effort (LOE) of 1,104 hours and \$120,830.40 (b)(4) cost (b)(4) fee). The total approved ceiling for LOE is 1,569 hours and \$170,071.17 (b)(4) cost (b)(4) fee). The contractor is not authorized to go over the approved ceiling without approval from the Contracting Officer. | | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | | |
| SFO (Max 2) 22 Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 1,569 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 0 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 1,569 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Richard Benware | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number 703-308-0436 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
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| | | | | | | FAX Number: | | | | |

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|---|----------------|----------------------|--|----------------------------|--|--|-----------------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | CERCLA 108(b) Economics | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to add additional level of effort (LOE) in the amount of 1,465 hours for on-going support to task 4 under this work assignment. The new total LOE for the work assignment is 3,034 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request. | | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | LOE: 1,569 | | | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | 1,465 | | | | | | |
| | | | | | | | | | | |
| Total: | | | | 3,034 | | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | | LOE: | | | |
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| Cumulative Approved: | | | | Cost/Fee: | | | LOE: | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Richard Benware | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number 703-308-0436 | | | |
| | | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: | | | |
| | | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | | FAX Number: | | | |

Statement of Work
Work Assignment No. 3-14
EPA Contract #: EP-W-12-013

1. **TITLE: CERCLA 108(b) – Economics Support for Financial Assurance Rule**

2. **PERIOD OF PERFORMANCE:** Date of CO signature through April 29, 2016

3. **WORK ASSIGNMENT MANAGER:**

WAM:

Richard Benware

Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery
Mailing Address:
US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-308-0436

E-mail: benware.richard@epa.gov

Alt WAM

N/A

Mailing Address:

Phone:

E-mail:

4. **BREIF BACKGROUND ON PROJECT AND PRIOR CONTRACT SUPPORT:**

US EPA has been involved in significant ongoing analyses needed for promulgation of financial assurance regulations under CERCLA, 108(b). Substantial prior work has already been completed under prior Work Assignments (WA's) with Industrial Economics (IEc). This work has been conducted on an on-going basis through the contract period of performance, which ends on April 30, 2015.

Specific tasks that have already been conducted are thoroughly outlined in the Scopes of Work and Approved IEC Work Plans for WA #B-7, WA #1-14, and WA #2-14 of this contract, as well as other prior WA's associated with the CERCLA 108(b) Rulemaking.

5. **STATEMENT OF WORK FOR WA #3-14:**

This WA is being utilized to continue conducting on-going economic analyses for the CERCLA 108(b) regulatory development process, and continue with this work into Option Period 3 of this contract. This subject rulemaking continues to be conducted on an aggressive project schedule, which may merit

much more work over the period of this WA request. In order to produce the analyses necessary to support the rule development and all of the steps associated with the Action Development Process, much of this work may also have to be conducted on a fairly rapid turnaround.

There is a wide array of analyses needed for this rule, and this WA, therefore, seeks to accommodate this with a scope of work comprised of several broadly defined tasks. These tasks together seek to cover the full breadth of analyses needed to assess the regulatory and economic impacts for the rule (subject to the limits of available data and funding). Such tasks will include more immediate high priority analyses needed earlier in the over rulemaking schedule, versus longer term research needs (some of which will be identified as more decisions are made about the specific content and requirements to be set forth in the rule).

Lastly, the work to be performed for WA #3-14 shall take advantage of all prior work conducted for WA #B-7, WA #1-14, and WA #2-14, as well as any and all results generated for the CERCLA 108(b) rulemaking via other contract vehicles (such as related risk analyses developed by Research Triangle, Inc., etc.). Furthermore, work conducted under this WA shall be performed in concert with related tasks separately requested under WA# 3-19. All data, analyses, and findings generated to meet the SOW for WA# 3-14 and WA# 3-19 are to be shared and taken advantage of for the purposes of both work assignments, as appropriate and feasible.

[Note: Analyses of immediate need shall, however, represent typical contractor support services pertaining to regulatory impact analyses (RIA) necessary for rule writing and promulgation. As such, amendments may be added to this WA in order to continue and/or add similar types of contract services which may be needed on an on-going basis over the duration of this rulemaking.]

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved WA, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM (and/or the Alternate WAM). The contractor shall maintain at least weekly communication with the EPA WAM and Alternate WAM in order to share any anticipated events, which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the WA. The contractor shall also provide management oversight of the WA throughout its entire period of performance.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities achieved throughout the WA.

Task 2: Analyses Relevant to HLRIA and the Selection of Subclass(es) to be Regulated

No modifications to this task.

Task 3(a) & 3(b): Data Management and Modification Needs

No modifications to this task.

Task 4: Cost Estimation TSD

Under this task, the contractor shall write a draft, stand-alone technical support document (TSD) developing the cost estimation formula(s) to be used by facilities in estimating their amount of financial responsibility. Prior to commencing the writing of the TSD, the contractor shall provide a draft outline of the chapters, sections, subsections, and appendices to the WAM for review. The contractor shall endeavor to follow the outline and comments when completing the TSD, but may deviate when necessary. At a minimum, the TSD shall contain the following chapters and/or sections:

- Executive Summary
- Introduction and Background;
- Statutory Considerations and Historical Perspective;
- Superfund and Existing Practice;
- Data Collection;
- Development of Financial Responsibility Formula;
- Adjustments for Risk-Reducing Factors;
- Cost Estimate Validation for Historical Sites;
- Conclusion
- References (if necessary)
- Appendices

The WAM shall initiate the writing of each chapter, section, subsection, or appendix via technical direction. Upon completion of each segment, the contractor shall deliver the Microsoft Word draft, and any underlying spreadsheets to the WAM, who will have the opportunity to provide comments to the contractor. These comments shall be incorporated into a revised draft. To the extent practicable, in writing these segments the contractor shall:

- Check all grammar and spelling
- Attach a table of contents for that segment
- Attach a list of acronyms for that segment
- Include web links for all freely available references, or where web links are not available, deliver electronic copies to the WAM
- Link all tables to underlying spreadsheets and perform QA/QC on those spreadsheets
- Link all Excel tables in the TSD, particularly showing all the critical steps and assumptions (preferably on the same page) used to calculate the results. Tables and/or surrounding text should include formulas and all relevant information, so the reader can follow step by step.

Upon completion of all segments of the TSD, the contractor shall use each section's attached table of contents and acronyms to create the final front-matter of the TSD, which shall also include a cover page, acknowledgements, and any other necessary materials. A completed draft TSD will be circulated a minimum of three separate times by the WAM (once each to EPA management, the regulatory workgroup, and OMB). Each time, the WAM will provide all comments received to the contractor, and the contractor will update the draft to incorporate these comments. The contractor shall also maintain a track-changes and clean version of the OMB review draft for publication to the docket.

Task 4(a): TSD Documentation Relating to Superfund and CERCLA 108(b)

Under this sub-task, the contractor shall review existing documentation developed under this or other work assignments, supplement the record with case studies (if necessary), and draft sections of the TSD relating to the following topics discussed above:

- Introduction and Background;
- Statutory Considerations and Historical Perspective;
- Superfund and Existing Practice;

Under this task, the contractor shall first reassess and familiarize themselves with existing work. The contractor shall also identify critical gaps for which it believes require collection of additional case studies is necessary. Prior to the gathering of any additional case studies, the contractor shall first discuss the gaps with the WAM and receive technical direction that the additional data collection is necessary.

The WAM will issue a separate technical directive to commence writing of the each of the relevant section(s) and appendices. These sections shall also be revised pursuant to comments provided by the WAM on each draft.

Task 4(b): Data Collection

Under this sub-task, the contractor shall write a draft memorandum which details the goals and criteria used for data collection, collect additional data when necessary (if not already collected under another work assignment), and write the section(s) and appendices of the TSD relating to the data collection.

The draft memorandum of goals and data collection criteria will be shared amongst other EPA staff, and shall be revised (if necessary) based on any comments received from the WAM.

A substantial data collection effort has taken place via contract under the direction of the Superfund program, in order to glean information on the actual and/or projected engineering costs and amounts of FA at a large number of mining facilities across the US. This work has been conducted by Jim Kuipers, who is a mining expert with many years of experience in this field. Should these data already satisfy the goals and criteria set forth in the memorandum, no additional data collection may be necessary. However, to the extent that additional data collection is necessary, it should conform to the goals and criteria documented in the most recent draft of the memorandum.

The WAM will issue a technical directive to commence writing of the section(s) and appendices relating to data collection. These sections shall also be revised pursuant to comments provided by the WAM on each draft.

Task 4(c): Developing a Cost Estimation Formula

Under this sub-task, the contractor shall write a draft memorandum which details options, goals, criteria, and assumptions to be used for formula development, develop a formula that satisfies the items laid forth in the goals memo, and write the section(s) and appendices of the TSD relating to formula development.

The draft memorandum of cost estimation goals and criteria will be shared amongst other EPA staff, and shall be revised (if necessary) based on any comments received from the WAM.

The WAM will issue a technical directive to commence the development of a financial responsibility cost estimation formula. This formula will be developed to satisfy the requirements laid forth in the goals memo, and shall use only data collected under Task 4(b). Should the data collected under that task be found inadequate, the contractor shall notify the WAM as soon as practicable. Revised versions of the formula shall be submitted upon further technical direction from the WAM.

The WAM will issue a technical directive to commence writing of the section(s) and appendices relating to formula development. These sections shall also be revised pursuant to comments provided by the WAM on each draft.

Task 4(d): Adjustments for Risk-Reducing Factors

Under this sub-task, the contractor shall write a draft memorandum which details options, goals, criteria, and assumptions to be used for development of downward adjustment factors resulting from risk-reducing practices, develop factors that satisfy the items laid forth in this memo, and write the section(s) and appendices of the TSD relating to factor development.

The draft memorandum of downward adjustment factors goals and criteria shall include a discussion of the level and type of additional data that may need to be collected (if necessary) under various options for factor development. The draft memorandum will be shared amongst other EPA staff, and shall be revised (if necessary) based on any comments received from the WAM.

The WAM will issue a technical directive to commence the development of downward adjustment factors. These factors will be developed to satisfy the requirements laid forth in the goals memo. Revised versions of the factors shall be submitted upon further technical direction from the WAM.

The WAM will issue a technical directive to commence writing of the section(s) and appendices relating to formula development. These sections shall also be revised pursuant to comments provided by the WAM on each draft.

Task 4(e): Costs Estimation Validation

Under this sub-task, the contractor shall write a draft memorandum which details the goals and criteria used for selection of historical CERCLA sites to use for cost estimation validation, collect additional data when necessary (if not already collected under another work assignment), compare estimated financial responsibility amounts to actual response costs or projected response costs, and write the section(s) and appendices of the TSD relating to the cost estimation validation.

The draft memorandum of goals and criteria will be shared amongst other EPA staff, and shall be revised (if necessary) based on any comments received from the WAM.

Some data collection has taken place via contract under the direction of the Superfund program, in order to glean information on characteristics of historical CERCLA sites (e.g., Summitville). This work has been conducted by Jim Kuipers, who is a mining expert with many years of experience in this field. Other data collection has taken place via previous work assignments with IEC, in order to collect historical response costs (e.g., records of decision, fund expenditures, and special accounts funded through settlements and judgments). Should these data already satisfy the goals and criteria set forth in the memorandum, no additional data collection may be necessary. However, to the extent that additional data collection is necessary, it should conform to the goals and criteria documented in the most recent draft of the memorandum.

The WAM will issue a technical directive to commence validation of the draft cost estimation work conducted in Tasks 4(c) and 4(d) above, and a separate technical directive to commence revised validation for each revision of the work under these other tasks.

The WAM will issue a technical directive to commence writing of the section(s) and appendices relating to cost estimation validation. These sections shall also be revised pursuant to comments provided by the WAM on each draft.

Task 5: Draft Assessment of Economic and Regulatory Impacts

No modifications to this task.

Task 6: Regulatory Information Collection Request (ICR) Support

No modifications to this task.

6. CONTRACTOR QA AND DATA DELIVERABLE REQUIREMENTS

The contractor shall comply with all applicable requirements of the contract, including compliance with all QA standards, provision of monthly invoices detailing progress and for notifying the WAM of the status of remaining funds, and other such requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition, the contractor shall make use of the following in developing the appropriate QA/QC requirements: *Guidance for Data Quality Objectives*

(EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>. Furthermore, all data and supporting documents used in the performance of this contract and all associated analyses shall be provided to EPA at the completion of the work, as well as at any such time that it is requested by the WAM or Alt. WAM.

7. OVERALL SCHEDULE FOR DELIVERABLES

| Task and Deliverable for WA # 3-14 | Estimated Delivery (days include weekdays and weekends) |
|--|--|
| <u>Task 1 – Workplan and Budget Management</u> | |
| Deliverable 1: Workplan and Budget | 20 days after receipt of the approved work assignment. |
| <u>Task 4: Cost Estimation TSD</u> | |
| <ul style="list-style-type: none"> • Draft Outline of TSD • Revised Outline of TSD • Draft Full TSD Text • Revised Full TSD Text | <ul style="list-style-type: none"> • 07 days after WP Approval • 07 days after TD receipt • 28 days after TD receipt • 14 days after TD receipt |
| <u>Task 4(a)</u> | |
| <ul style="list-style-type: none"> • Critical Gaps • Draft TSD Sections • Revised TSD Sections | <ul style="list-style-type: none"> • 14 days after TD receipt • 28 days after TD receipt • 14 days after TD receipt |
| <u>Task 4(b)</u> | |
| <ul style="list-style-type: none"> • Draft Goals Memorandum • Revised Goals Memorandum • Draft Data Collection Section(s) • Revised Data Collection Section(s) | <ul style="list-style-type: none"> • 14 days after TD receipt • 07 days after TD receipt • 28 days after TD receipt • 14 days after TD receipt |
| <u>Task 4(c)</u> | |
| <ul style="list-style-type: none"> • Draft Goals Memorandum • Revised Goals Memorandum • Draft Formula Memorandum • Revised Formula Memorandum • Draft Formula TSD Section(s) • Revised Formula TSD Section(s) | <ul style="list-style-type: none"> • 14 days after TD receipt • 07 days after TD receipt • 21 days after TD receipt • 14 days after TD receipt • 28 days after TD receipt • 14 days after TD receipt |
| <u>Task 4(d)</u> | |
| <ul style="list-style-type: none"> • Draft Goals Memorandum • Revised Goals Memorandum • Draft Factors Memorandum • Revised Factors Memorandum • Draft Factors TSD Section(s) • Revised Factors TSD Section(s) | <ul style="list-style-type: none"> • 14 days after TD receipt • 07 days after TD receipt • 21 days after TD receipt • 14 days after TD receipt • 28 days after TD receipt • 14 days after TD receipt |
| <u>Task 4(e)</u> | |
| <ul style="list-style-type: none"> • Draft Goals Memorandum • Revised Goals Memorandum • Draft Validation TSD Section(s) • Revised Validation TSD Section(s) | <ul style="list-style-type: none"> • 14 days after TD receipt • 07 days after TD receipt • 28 days after TD receipt • 14 days after TD receipt |

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| <u>Task 2: HLRIA Analyses & Selection of Subclass(es)</u> No modifications to this task. | |
| <u>Task 3: Data Management and Modification Needs</u> No modifications to this task. | |
| <u>Task 5 – Economic analysis related work</u> No modifications to this task. | |
| <u>Task 6 – Regulatory Information Collection Request (ICR) Support</u> No modifications to this task. | |

| <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <h1 style="margin: 0;">EPA</h1> </div> <div style="text-align: center;"> <p>United States Environmental Protection Agency Washington, DC 20460</p> <h2 style="margin: 0;">Work Assignment</h2> </div> </div> | | <p>Work Assignment Number 3-14</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: </div> <p style="text-align: right;">000005</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| <p>Contract Number EP-W-12-013</p> | | <p>Contract Period 04/30/2012 To 04/29/2016</p> <p>Base Option Period Number 3</p> | | <p>Title of Work Assignment/SF Site Name CERCLA 108 (b) Econ. support</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Contractor INDUSTRIAL ECONOMICS, INCORPORATED</p> | | | <p>Specify Section and paragraph of Contract SOW</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Purpose:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Work Assignment <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Work Plan Approval </div> <div> <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Incremental Funding </div> </div> | | | <p>Period of Performance</p> <p>From 04/30/2015 To 04/29/2016</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Comments:</p> <p>Taetaye Shimeles is appointed as alt.work assignment manager. The contractor's work plan/cost estimate 10/19/15 with level of efforts, LOE at 1,465 hours and \$159,846.19 (b)(4) cost (b)(4) fee is being approved. The contractor is not authorized to go over the approved ceiling of 3034 LOE and \$329,917.36 (Cost (b)(4) Fee (b)(4)) without the approval from the Contracting Officer.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund </div> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>SFO (Max 2) 22</p> <p style="text-align: center; font-size: small;">Note: To report additional accounting and appropriations date use EPA Form 1900-69A.</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>Line</th> <th>DCN (Max 6)</th> <th>Budget/FY (Max 4)</th> <th>Appropriation Code (Max 6)</th> <th>Budget Org/Code (Max 7)</th> <th>Program Element (Max 9)</th> <th>Object Class (Max 4)</th> <th>Amount (Dollars)</th> <th>(Cents)</th> <th>Site/Project (Max 8)</th> <th>Cost Org/Code (Max 7)</th> </tr> </thead> <tbody> <tr><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> | | | | | | Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) | 1 | | | | | | | | | | | 2 | | | | | | | | | | | 3 | | | | | | | | | | | 4 | | | | | | | | | | | 5 | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Authorized Work Assignment Ceiling | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Contract Period:</td> <td style="width: 33%;">Cost/Fee:</td> <td style="width: 34%;">LOE:</td> </tr> <tr> <td>04/30/2012 To 04/29/2016</td> <td></td> <td>3,034</td> </tr> <tr> <td>This Action:</td> <td></td> <td>0</td> </tr> <tr> <td>Total:</td> <td></td> <td>3,034</td> </tr> </table> | | | | | | Contract Period: | Cost/Fee: | LOE: | 04/30/2012 To 04/29/2016 | | 3,034 | This Action: | | 0 | Total: | | 3,034 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contract Period: | Cost/Fee: | LOE: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 04/30/2012 To 04/29/2016 | | 3,034 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Total: | | 3,034 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contractor WP Dated: | | Cost/Fee: | | LOE: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cumulative Approved: | | Cost/Fee: | | LOE: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Work Assignment Manager Name Richard Benware</p> <div style="border-bottom: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> (Signature) (Date) </div> | | | <p>Branch/Mail Code:</p> <p>Phone Number 703-308-0436</p> <p>FAX Number:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Project Officer Name Shannon Sturgeon</p> <div style="border-bottom: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> (Signature) (Date) </div> | | | <p>Branch/Mail Code:</p> <p>Phone Number: 703-605-0509</p> <p>FAX Number: 703-308-7903</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Other Agency Official Name</p> <div style="border-bottom: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> (Signature) (Date) </div> | | | <p>Branch/Mail Code:</p> <p>Phone Number:</p> <p>FAX Number:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Contracting Official Name Eulvid Rocque</p> <div style="border-bottom: 1px solid black; margin-top: 10px; display: flex; justify-content: space-between;"> (Signature) (Date) </div> | | | <p>Branch/Mail Code:</p> <p>Phone Number: 202-564-8316</p> <p>FAX Number:</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|---|----------------|----------------------|--|--|----------------------------|--|---------------------------------|-------------------------|------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000006 | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name CERCLA 108 (b) Financial Rule | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: This amendment is to add additional level of effort (LOE) in the amount of 900 hours for on-going support to task 4 under this work assignment. The new total LOE for this work assignment is 3,934 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request. | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | |
| SFO 22 Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) (Cents) | Site/Project (Max 8) | Cost Org/Code |
| 1 | | | | | | | | | |
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| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| Authorized Work Assignment Ceiling | | | | | | | | | |
| Contract Period: | | | | Cost/Fee: | | LOE: 0 | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | |
| This Action: | | | | | | 3,934 | | | |
| | | | | | | | | | |
| Total: | | | | | | 3,934 | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee | | LOE: | | | |
| Cumulative Approved: | | | | Cost/Fee | | LOE: | | | |
| Work Assignment Manager Name Richard Benware | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 703-308-0436 | | | |
| | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: | | | |
| | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | FAX Number: | | | |

Statement of Work
Work Assignment No. 3-14 Amendment 6
EPA Contract #: EP-W-12-013

1. **TITLE: CERCLA 108(b) – Economics Support for Financial Assurance Rule**

2. **PERIOD OF PERFORMANCE:** Date of CO signature through April 29, 2016

3. **WORK ASSIGNMENT MANAGER:**

WAM:

Richard Benware

Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery
Mailing Address:
US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-308-0436

E-mail: benware.richard@epa.gov

Alt WAM

Taetaye Shimeles

Phone: 703-308-8729

E-mail: [shimeles.taetaye @epa.gov](mailto:shimeles.taetaye@epa.gov)

4. **BREIF BACKGROUND ON PROJECT AND PRIOR CONTRACT SUPPORT:**

US EPA has been involved in significant ongoing analyses needed for promulgation of financial assurance regulations under CERCLA, 108(b). Substantial prior work has already been completed under prior Work Assignments (WA's) with Industrial Economics (IEc). This work has been conducted on an on-going basis through the contract period of performance, which ends on April 30, 2015.

Specific tasks that have already been conducted are thoroughly outlined in the Scopes of Work and Approved IEc Work Plans for WA #B-7, WA #1-14, and WA #2-14 of this contract, as well as other prior WA's associated with the CERCLA 108(b) Rulemaking.

5. **STATEMENT OF WORK FOR WA #3-14:**

This WA is being utilized to continue conducting on-going economic analyses for the CERCLA 108(b) regulatory development process, and continue with this work into Option Period 3 of this contract. This subject rulemaking continues to be conducted on an aggressive project schedule, which may merit much more work over the period of this WA request. In order to produce the analyses necessary to

support the rule development and all of the steps associated with the Action Development Process, much of this work may also have to be conducted on a fairly rapid turnaround.

There is a wide array of analyses needed for this rule, and this WA, therefore, seeks to accommodate this with a scope of work comprised of several broadly defined tasks. These tasks together seek to cover the full breadth of analyses needed to assess the regulatory and economic impacts for the rule (subject to the limits of available data and funding). Such tasks will include more immediate high priority analyses needed earlier in the over rulemaking schedule, versus longer term research needs (some of which will be identified as more decisions are made about the specific content and requirements to be set forth in the rule).

Lastly, the work to be performed for WA #3-14 shall take advantage of all prior work conducted for WA #B-7, WA #1-14, and WA #2-14, as well as any and all results generated for the CERCLA 108(b) rulemaking via other contract vehicles (such as related risk analyses developed by Research Triangle, Inc., etc.). Furthermore, work conducted under this WA shall be performed in concert with related tasks separately requested under WA# 3-19. All data, analyses, and findings generated to meet the SOW for WA# 3-14 and WA# 3-19 are to be shared and taken advantage of for the purposes of both work assignments, as appropriate and feasible.

[Note: Analyses of immediate need shall, however, represent typical contractor support services pertaining to regulatory impact analyses (RIA) necessary for rule writing and promulgation. As such, amendments may be added to this WA in order to continue and/or add similar types of contract services which may be needed on an on-going basis over the duration of this rulemaking.]

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved of this WA amendment, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM (and/or the Alternate WAM). The contractor shall maintain at least weekly communication with the EPA WAM and Alternate WAM in order to share any anticipated events, which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the WA. The contractor shall also provide management oversight of the WA throughout its entire period of performance.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities achieved throughout the WA.

Task 2: Analyses Relevant to HLRIA and the Selection of Subclass(es) to be Regulated

No modifications to this task.

Task 3(a) & 3(b): Data Management and Modification Needs

No modifications to this task.

Task 4: Cost Estimation TSD

Task 4(a): TSD Documentation Relating to Superfund and CERCLA 108(b)

No modifications to this task.

Task 4(b): Data Collection

In developing the cost estimation formula, it has been determined that additional effort is required to gather additional data to complete the development of the cost formula for CERCLA 108(B). As such under this sub-task, the contractor shall collect additional data on the 67 sites being used to develop the cost estimation formula. The data collection effort shall follow the following hierarchy:

- 1) State financial assurance documents and associated reclamation and closure plans;
- 2) Environmental Impact Statements (EISs);

The data to be collected includes site-specific environmental data related to aquifer saturated thickness, depth-to-ground water, hydraulic conductivity (if available), and presence pit lakes. In addition, data on the existence of engineering controls should also be collected, as enumerated in the attached spreadsheet pdf “Eng Controls Sorted 01-14-16.”

The deliverables under this sub-task shall include a draft memorandum, which details the goals and criteria used for this round of data collection, and the collected additional data. The contractor may incorporate the information into the original draft memo, which was produced under work assignment amendment 4. In addition, based on the additional data collected, the contractor shall revise the cost formula (under task 4c of WA 3-14#amendment 4), and re-write the section(s) and appendices of the TSD related to this data collection effort.

The deliverables will be reviewed by EPA’s staff, and the contractor shall revise the memo (if necessary) based on any comments received from the WAM. Please follow all requirements and deadlines laid forth in the base work assignment as well as subsequent amendments.

The WAM will issue a technical directive to commence writing of the section(s) and appendices relating to data collection. These sections shall also be revised pursuant to comments provided by the WAM on each draft.

Task 4(c): Developing a Cost Estimation Formula

No modifications to this task.

Task 4(d): Adjustments for Risk-Reducing Factors

No modifications to this task.

Task 4(e): Costs Estimation Validation

No modifications to this task

Task 5: Draft Assessment of Economic and Regulatory Impacts

No modifications to this task.

Task 6: Regulatory Information Collection Request (ICR) Support

No modifications to this task.

6. CONTRACTOR QA AND DATA DELIVERABLE REQUIREMENTS

The contractor shall comply with all applicable requirements of the contract, including compliance with all QA standards, provision of monthly invoices detailing progress and for notifying the WAM of the status of remaining funds, and other such requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition, the contractor shall make use of the following in developing the appropriate QA/QC requirements: *Guidance for Data Quality Objectives* (EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>. Furthermore, all data and supporting documents used in the performance of this contract and all associated analyses shall be provided to EPA at the completion of the work, as well as at any such time that it is requested by the WAM or Alt. WAM.

7. OVERALL SCHEDULE FOR DELIVERABLES

| Task and Deliverable for WA # 3-14 Amend. 6 | Estimated Delivery (days include weekdays and weekends) |
|--|--|
| <u>Task 1 – Workplan and Budget Management</u> Deliverable 1: Workplan and Budget | 20 days after receipt of the approved work assignment. |
| <u>Task 4: Cost Estimation TSD</u> Task 4(a) <ul style="list-style-type: none">• No modification to this task. Task 4(b) <ul style="list-style-type: none">• Draft Memorandum• Revised Memorandum | <ul style="list-style-type: none">• 14 days after WP Approval• 07 days after TD receipt |

| | |
|--|--|
| <ul style="list-style-type: none"> • Draft Data Collection Section(s) • Revised Data Collection Section(s) <p><u>Task 4(c)</u></p> <ul style="list-style-type: none"> • No modification to this task. <p><u>Task 4(d)</u></p> <ul style="list-style-type: none"> • No modification to this task. <p><u>Task 4(e)</u></p> <ul style="list-style-type: none"> • No modification to this task. | <ul style="list-style-type: none"> • 28 days after TD receipt • 14 days after TD receipt |
| <p><u>Task 2: HLRIA Analyses & Selection of Subclass(es)</u></p> <p>No modifications to this task.</p> | |
| <p><u>Task 3: Data Management and Modification Needs</u></p> <p>No modifications to this task.</p> | |
| <p><u>Task 5 – Economic analysis related work</u></p> <p>No modifications to this task.</p> | |
| <p><u>Task 6 – Regulatory Information Collection Request (ICR)</u></p> <p><u>Support</u></p> <p>No modifications to this task.</p> | |

| | | | | | | | | | | |
|--|----------------|----------------------|--|----------------------------|--|--|----------------------------|---------|-------------------------|------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000007 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name CERCLA 108(B) - ECONOMICS SUPP | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: This amendment approves the contractor's work plan/cost estimate dated 02/29/2016 with level of effort (LOE) of 900 hours and \$103,738.43 (b)(4) cost (b)(4) fee). A no-cost LOE increase of 191 hours is also approved. New ceilings are LOE at 4,125 and \$433,655.79 (b)(4) cost (b)(4) fee). The contractor is | | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | | |
| SFO 22 Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code |
| 1 | | | | | | | | | | |
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| 3 | | | | | | | | | | |
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| 5 | | | | | | | | | | |
| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | LOE: 3,934 | | | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | 191 | | | | | | |
| | | | | | | | | | | |
| Total: | | | | 4,125 | | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee | | | LOE: | | | |
| Cumulative Approved: | | | | Cost/Fee | | | LOE: | | | |
| Work Assignment Manager Name Richard Benware | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 703-308-0436 | | | |
| | | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: | | | |
| | | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | | FAX Number: | | | |

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|---|----------------|----------------------|--|----------------------------|--|--|------------------|---------|-------------------------|------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000008 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2016 To 04/29/2017 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | CERCLA 108b Economics | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: This amendment request additional level of effort (LOE) to support efforts needed per the attached revised statement of work. The contractor shall submit a work plan and cost estimate as it relates to the subject matter. The contractor is not authorized to go over the already approved ceilings without the authorization | | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | | |
| SFO 22 Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |
| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 4,125 | | | | |
| 04/30/2016 To 04/29/2017 | | | | | | | | | | |
| This Action: | | | | | | 0 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 4,125 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Richard Benware | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-308-0436 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

**Work Assignment No. 3-14 Amendment
EPA Contract #: EP-W-12-013**

WORK ASSIGNMENT TITLE: CERCLA 108(b) – Economics Support for Financial Assurance Rule

PERIOD OF PERFORMANCE: Date of CO signature through April 29, 2016

WORK ASSIGNMENT MANAGER:

WAM:

Richard Benware

Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery
Mailing Address:
US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-308-0436
E-mail: benware.richard@epa.gov

Alt WAM

Taetaye Shimeles

Phone: 703-308-8729
E-mail: [shimeles.taetaye @epa.gov](mailto:shimeles.taetaye@epa.gov)

4. BRIEF BACKGROUND ON PROJECT AND PRIOR CONTRACT SUPPORT:

US EPA has been involved in significant ongoing analyses needed for promulgation of financial assurance regulations under CERCLA, 108(b). Substantial prior work has already been completed under prior Work Assignments (WA's) with Industrial Economics (IEc). This work has been conducted on an on-going basis through the contract period of performance, which ends on April 30, 2015.

The purpose of work assignment amendment is to add LOEs hours to WA#3-14 to support the continuation of work being performed by the contractor through the end of the current performance period. No other modifications are made to the statement of work.

5. STATEMENT OF WORK FOR WA #3-14:

This WA is being utilized to continue conducting on-going economic analyses for the CERCLA 108(b) regulatory development process, and continue with this work into Option Period 3 of this contract. This subject rulemaking continues to be conducted on an aggressive project schedule, which may merit much more work over the period of this WA request. In order to produce the analyses necessary to

support the rule development and all of the steps associated with the Action Development Process, much of this work may also have to be conducted on a fairly rapid turnaround.

There is a wide array of analyses needed for this rule, and this WA, therefore, seeks to accommodate this with a scope of work comprised of several broadly defined tasks. These tasks together seek to cover the full breadth of analyses needed to assess the regulatory and economic impacts for the rule (subject to the limits of available data and funding). Such tasks will include more immediate high priority analyses needed earlier in the over rulemaking schedule, versus longer term research needs (some of which will be identified as more decisions are made about the specific content and requirements to be set forth in the rule).

Lastly, the work to be performed for WA #3-14 shall take advantage of all prior work conducted for WA #B-7, WA #1-14, and WA #2-14, as well as any and all results generated for the CERCLA 108(b) rulemaking via other contract vehicles (such as related risk analyses developed by Research Triangle, Inc., etc.). Furthermore, work conducted under this WA shall be performed in concert with related tasks separately requested under WA# 3-19. All data, analyses, and findings generated to meet the SOW for WA# 3-14 and WA# 3-19 are to be shared and taken advantage of for the purposes of both work assignments, as appropriate and feasible.

[Note: Analyses of immediate need shall, however, represent typical contractor support services pertaining to regulatory impact analyses (RIA) necessary for rule writing and promulgation. As such, amendments may be added to this WA in order to continue and/or add similar types of contract services which may be needed on an on-going basis over the duration of this rulemaking.]

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved of this WA amendment, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM (and/or the Alternate WAM). The contractor shall maintain at least weekly communication with the EPA WAM and Alternate WAM in order to share any anticipated events, which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the WA. The contractor shall also provide management oversight of the WA throughout its entire period of performance.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities achieved throughout the WA.

Task 2: Analyses Relevant to HLRIA and the Selection of Subclass(es) to be Regulated

No modifications to this task.

Task 3(a) & 3(b): Data Management and Modification Needs

No modifications to this task.

Task 4: Cost Estimation TSD

Task 4(a): TSD Documentation Relating to Superfund and CERCLA 108(b)

No modifications to this task.

Task 4(b): Data Collection

No modifications to this task.

Task 4(c): Developing a Cost Estimation Formula

No modifications to this task.

Task 4(d): Adjustments for Risk-Reducing Factors

No modifications to this task.

Task 4(e): Costs Estimation Validation

No modifications to this task

Task 5: Draft Assessment of Economic and Regulatory Impacts

No modifications to this task.

Task 6: Regulatory Information Collection Request (ICR) Support

No modifications to this task.

6. CONTRACTOR QA AND DATA DELIVERABLE REQUIREMENTS

The contractor shall comply with all applicable requirements of the contract, including compliance with all QA standards, provision of monthly invoices detailing progress and for notifying the WAM of the status of remaining funds, and other such requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition, the contractor shall make use of the following in developing the appropriate QA/QC requirements: *Guidance for Data Quality Objectives* (EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and

others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>. Furthermore, all data and supporting documents used in the performance of this contract and all associated analyses shall be provided to EPA at the completion of the work, as well as at any such time that it is requested by the WAM or Alt. WAM.

7. **OVERALL SCHEDULE FOR DELIVERABLES**

| Task and Deliverable for WA # 3-14 Amend. 6 | Estimated Delivery (days include weekdays and weekends) |
|---|---|
| <u>Task 1 – Workplan and Budget Management</u> Deliverable 1: Workplan and Budget | 20 days after receipt of the approved work assignment. |
| <u>Task 4: Cost Estimation TSD</u> <u>Task 4(a)</u> <ul style="list-style-type: none"> No modification to this task. <u>Task 4(b)</u> <ul style="list-style-type: none"> Draft Memorandum Revised Memorandum Draft Data Collection Section(s) Revised Data Collection Section(s) <u>Task 4(c)</u> <ul style="list-style-type: none"> No modification to this task. <u>Task 4(d)</u> <ul style="list-style-type: none"> No modification to this task. <u>Task 4(e)</u> <ul style="list-style-type: none"> No modification to this task. | <ul style="list-style-type: none"> 14 days after WP Approval 07 days after TD receipt 28 days after TD receipt 14 days after TD receipt |
| <u>Task 2: HLRIA Analyses & Selection of Subclass(es)</u> No modifications to this task. | |
| <u>Task 3: Data Management and Modification Needs</u> No modifications to this task. | |
| <u>Task 5 – Economic analysis related work</u> No modifications to this task. | |
| <u>Task 6 – Regulatory Information Collection Request (ICR) Support</u> No modifications to this task. | |

| | | | | | | | | | |
|--|----------------|----------------------|--|---|----------------------------|--|---------------------------------|-------------------------|------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-14 | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000009 | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2017 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name CERCLA 108(B) Econ Support | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | |
| Comments: This amendment approves the contractor's work plan/cost Estimate dated 04/12/2016 with a level of effort LOE) of 500 hours and \$65,513.29 (b)(4) cost (b)(4) fee). Also approve the contractor's no cost reallocation of 90.1 LOEs. New total approved ceilings are LOE 4625 and \$499,169.08 (b)(4) cost (b)(4) | | | | | | | | | |
| <input checked="" type="checkbox"/> Superfund Accounting and Appropriations Data <input type="checkbox"/> Non-Superfund | | | | | | | | | |
| SFO 22 Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) (Cents) | Site/Project (Max 8) | Cost Org/Code |
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| Authorized Work Assignment Ceiling | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | LOE: | | | | | |
| 04/30/2012 To 04/29/2017 | | | | 0 | | | | | |
| This Action: | | | | 4,625 | | | | | |
| Total: | | | | 4,625 | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee | | LOE: | | | |
| Cumulative Approved: | | | | Cost/Fee | | LOE: | | | |
| Work Assignment Manager Name Richard Benware | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-308-0436 | | | |
| | | | | | | FAX Number: | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | |
| | | | | | | FAX Number: 703-308-7903 | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | |
| | | | | | | FAX Number: | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | | | |
| | | | | | | FAX Number: | | | |

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|---|----------------|----------------------|---|----------------------------|---|---|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-15 | | | | |
| | | | | | | <input type="checkbox"/> Other <input type="checkbox"/> Amendment Number: | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name Highlighting RCRA Benefits | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input checked="" type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: The purpose of this amendment is to initiate Work Assignment(WA)3-15. Scott Palmer is appointed as the work assignment manager (WAM) and Rachel Horton as the alternate. WAM. The level of effort (LOE) is in the amount of 303 hours. The statement of work is attached. The contractor shall submit a work plan and cost estimate in response to this request. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 303 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 303 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| Work Assignment Manager Name Scott Palmer | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number 703-308-8621 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

Statement of Work
Work Assignment No. 3-15
EPA Contract #: EP-W-12-013

1. **Title:** Economic Benefits of RCRA Regulatory & Voluntary Programs

2. **Period of Performance:** Date of CO signature through 04/29/2016

3. **Work Assignment Manager:** **Scott Palmer**
Economics and Risk Analysis Staff
Office of Resource Conservation &

Recovery

Mailing Address:
US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-308-8621
E-mail: palmer.scott@epa.gov

Alt WAM:

Rachel Horton
Phone: 703-305-0894
E-mail: horton.rachel@epa.gov

4. **Background and Scope:**

The Office of Resource Conservation and Recovery (ORCR) is responsible for administering and tracking the performance of numerous voluntary initiatives and regulatory programs under its authority. Such programs are primarily focused on the proper management and disposal of both municipal and hazardous waste. ORCR routinely conducts program impact evaluations and benefit assessments for components of its overall program when feasible. However, the current effort seeks to produce a more succinct compilation of these program characteristics and impacts. In doing so, the requested analyses are intended to generate more defensible findings, while also covering the entire ORCR/RCRA program, so that this information will be more readily available for a wide array of uses both internal and external to the Agency.

To meet this objective, ORCR currently has a Work Assignment (WA # 2-15), which was originally initiated under Work Assignment #1-15, in order to characterize the size, reach, and beneficial impacts associated with ORCR/RCRA Program(s) (in terms of, for example, waste stream types and quantities, numbers of cleanups completed at corrective action sites, population within 1 mile of sites, etc.). During these initial phases of work, the aim has been to help better portrait the full breadth and extent of the program. These analyses are intended to put a solid foundation in place, and help produce key inputs necessary, for further higher level analyses. In this vein, this work also calls for additional levels of analysis, to investigate and utilize relevant available data and predictive modeling tools to highlight qualitative and quantitative program-wide impacts and benefit estimates where feasible.

As noted in the original Scopes of Work (SOW) for WA # 1-15 and WA # 2-15, these types of analyses occur on an ongoing basis and some significant work has already been conducted in this area. This body of prior work is currently being reviewed and utilized where appropriate in the analyses and work products now underway for WA # 2-15. [Note: More information on prior relevant analyses in this area is referenced in the original SOWs and associated deliverables to date for WA #1-15 and WA #2-15.]

Under the approved Work Plans for WA #1-15 and WA # 2-15, a plan/outline was developed to flush out the analyses and vehicles by which we would accomplish the overall objectives of the work assignment. The resulting plan, known as the “Quantitative RCRA Benefits Assessment – Annotated Outline (dated Jan. 6, 2014), includes recommendations for how to best capture, characterize, and advertise the benefits that jointly stem from our programs. This plan outlines necessary steps forward which have been closely relied upon for determining what analyses are most appropriate for the project.

The work called for under WA #1-15 and the original scope for #2-15 is now complete and the available funding has now been fully utilized. However, a new request for Amendment #3 to WA #2-15 was issued in late February of 2015, in order to provide sufficient funds to allow the contractor to continue working and expand upon the work already conducted to date under WA #1-15 and WA #2-15.

The Work Plan for WA #2-15 (Amendment #3) has now been approved. However, much of the scope of work will not be conducted (nor the associated budget expended) until after April 30th of 2015 under Option Period 3 of this contract. As such, WA #3-15 is being created for the new option period and includes only that portion of the scope of work (outlined in the approved Work Plan for WA #2-15 (Amendment #3). Specifically, the following scope of work simply removes the work associated with Task 2, as well as that of the short-term, quick turnaround work for Task 3, will be completed under Option Period 2. Consequently, the total LOE for WA #3-15 shall be the same as those approved for WA #2-15, minus the LOE for Task 2 and approximately 20% of the LOE allocated to the short term work being conducted under Task 3.

5. Statement of Work: The contractor shall conduct the following tasks:

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved work assignment, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM. The contractor shall maintain at least weekly communication with the EPA WAM of any anticipated events which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the work assignment. The contractor shall also provide management oversight of the work assignment throughout its entire period of performance.

The Contractor shall describe in the work plan, how they plans to apply quality assurance (QA), and indicate in the work plan that the Contractor shall include a brief (e.g., one paragraph or less) summary of QA activities in the monthly progress/invoice reports to the WAM for this work assignment. Because the types of “environmental data” involved in this SOW may mostly come from existing secondary sources which have already been subject to QA (e.g., peer-reviewed journals, and other Federal agencies such as the Energy Information Administration, the Census Bureau, and the Bureau of Labor Statistics), the QA activities for this SOW may only require the Contractor to (a) examine data, calculations, and calculation results (e.g., evaluate numerical outliers), and (b) double-check spreadsheet calculation formulae.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities met throughout the work assignment.

Task 2: Specific Areas of Analysis and Next Steps of Highest Priority

Under this task, the contractor shall build on the deliverables from the assessment already conducted under Task 2 of the Work Plan for WA #2-15, in order to develop estimates of quantified costs and benefits of ORCR programs, as well as complete other research/QA-QC tasks. The focus and content of this task will be driven both by the information assembled in Task 2, and by the evolving priorities of the ORCR Benefits work group.

Several Short-term tasks and some of the necessary quantification of costs and benefits as outlined in the Work Plan for WA #2-15 are assumed to have been completed in Option Period 2, and are therefore not included below.

[Note: In accordance with the approved work plan for WA #2-15 (Amendment #3), the contractor anticipates that the will be able to completion of all these tasks within the current option year, but work on longer term research tasks is subject to receipt of data from EPA, and delays in data receipt may affect our ability to complete the tasks in that time frame.]

Longer term research topics under consideration include:

- Finalizing Costs of RCRA analyses (estimates converge around \$10 billion annually for all RCRA program activities); developing a general breakout of Subtitle C, Subtitle D, and Corrective Action costs;
- Collecting updated data and finalizing generation and recycling numbers for:
 - o C&D recycling
 - o Food initiatives
 - o WasteWise

[Note: IEc shall awaits data from EPA to finalize these three values.]

- Collecting corrective action endpoint data to identify a subset of sites that have resulted in new uses for formerly abandoned properties. (Coordination with EPA is required to collect these data).
- Coordinating with EPA to evaluate options for analyzing commercial property value impacts.
- Developing breakeven analyses for benefits of Subtitle C Base Program, Corrective Action.
 - o Screen for endpoints that:
 - Involve large and well-documented baseline risks/threats
 - Have strong valuation approaches (e.g., monetized health impacts)
 - Have a clear link to RCRA regulations
 - o Use BR, RCRAInfo, Census, and (as appropriate) Superfund data to develop breakeven estimates. Match breakeven estimates of benefits with RCRA cost components.

EPA acknowledges that the exact number of additional research and investigations (if requested by EPA in addition to those outlined here) that can be addressed within the given budget may vary depending on the specific research questions and availability of data. In addition, the budget assumes that IEc will not engage in primary data collection for any of the topic areas, but will rely on secondary data and data provided by EPA to conduct the analyses.

Deliverables for Task 2

2-1. Draft report summarizing results of the additional analyses.

- 30 days after submission of WA approval and receipt of associated TD

2-2. Final report summarizing results of the additional analyses; incorporate the results in broader project documents and briefing materials.

- 14 days after receipt of comments from WAM

Task 3: Additional Potential Analyses as Needed

Task 3 outlines further analyses of interest, which may not be possible based on available funding at this time. Longer term and/or lower priority research will be conducted upon approval by the Project COR/WAM depending upon their projected feasibility, timing, and costs, and the availability of commensurate funding. While the focus of any work under this task is uncertain and will be clarified by technical direction, for planning purposes the budget for this task includes only a limited level of effort to scope an approach for two of these topics, or scope an approach and conduct an initial review of information for one of these topics.

1. Development of Outline and Recommendations for the preparation of an Annual Report on the “Benefits of the RCRA Program” The report would outline the reach of the program in terms of the amount of waste generated and related population demographics, project spending, and associated benefits from EPA’s program efforts. The Report would also seek to consider including a set of “challenge questions” that are routinely requested by Congress, the Media, and EPA’s upper management, so that such a report would help to make such information and estimates more readily available. Finally, the report will identify the years and sources of data, the data’s reliability and updateability.
2. Verify, update, and reconcile preliminary values (not yet QA’d) in existing deliverables and briefing:
 - o Recycling and LCA data: incorporate updates as data from EPA become available;
 - o Update and improve upon the 2005 Financial Assurance results;
 - o Reconcile CESQG numbers using the latest internal ORCR resolution;
 - o More closely examine/determine Foundry Sands benefits
3. New Ideas for Analyses and Metrics that could be Highlighted
 - o Estimate the reduction in virgin materials use due to recycling (e.g., “trees saved”, barrels of oil equivalents)
4. Flesh out the sections on RCRA Emerging Issues:
 - o Subcategories to capture special wastes vs. other types of regulatory improvements (new and novel RCRA guidance and regulations)

- o Examples of deregulatory work based on new science and technology i. Potentially examine changes in industry structure: utilize the Biennial Report data to evaluate changes in waste management by waste code to investigate whether a relative increase in safety has occurred in the last 20-30 years;
 - o Process improvement: further quantification of benefits (if available) and examples.
5. Additional benefits analyses (beyond break-even analyses described in Task 3.
- o Additional groundwater analysis;
 - o RCRA Land Disposal Restrictions;
 - o Corrective Action and groundwater remediation costs.

Deliverables for Task 3

3-1.Draft report summarizing results of the additional analyses.

- 30 days after submission of WA approval and receipt of associated TD

3-2.Final report summarizing results of the additional analyses; incorporate the results in broader project documents and briefing materials.

- 14 days after receipt of comments from WAM

6. Schedule of Deliverables

| TASK | DELIVERABLES | DUE DATES |
|-------------|--|---|
| Task 1 | Work Plan and Budget | Work plan – complete with this submission; Progress reports due monthly. |
| Task 2 | 2-1 Results of additional analyses – draft report 2-2 Results of additional analyses – revised report | 30 days after WA approval and receipt of associated TD. 14 days after receipt of WAM comments. |
| Task 3 | 3-1 Results of additional analyses – draft report 3-2 Results of additional analyses – revised report | 30 days after WA approval and receipt of associated TD. 14 days after receipt of WAM comments. |

7.) **OTHER CONTRACTOR REQUIREMENTS**

The contractor shall comply with all applicable requirements of the contract, including compliance with quality-assurance requirements, providing monthly invoices detailing progress and notifying the WAM of the status of remaining funds, and other requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition to the contract requirements for QA, documents that can be of used in developing the appropriate QA/QC requirements are: *Guidance for Data Quality Objectives* (EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>.

All hard copy and electronic data collected for the purposes of analyses under WA # 2-15 and this subject Amendment (other than that data which is publically available) shall be shared with EPA. Similarly, any algorithms, electronic spreadsheets, and/or modeling tools generated by the contractor, for the purposes of analyses conducted to meet the SOW for WA # 2-15 and this subject Amendment, shall be shared with EPA.

| | | | | | | | | | | |
|---|----------------|----------------------|--|----------------------------|--|--|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-15 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000001 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2015 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | RCRA program benefits | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to appoint Rachel Horton as the work assignment manager (WAM) and Scott Palmer as the alternate work assignment manager. All terms and conditions remain the same. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 303 | | | | |
| 04/30/2015 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 0 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 303 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Scott Palmer | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number 703-308-8621 | | | | |
| | | | | | | FAX Number: | | | | |
| _____ (Signature) (Date) | | | | | | | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| _____ (Signature) (Date) | | | | | | | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
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| _____ (Signature) (Date) | | | | | | | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| | | | | | | Phone Number: 202-564-8316 | | | | |
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| _____ (Signature) (Date) | | | | | | | | | | |

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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-15 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000002 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | RCRA Benefits Project | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW All tasks | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to approve the contractor's work plan/cost estimate dated 05/20/2015 with a Level of Effort (LOE) of 303 hours and \$32,237.44 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approve cost ceiling without the approval of the contracting officer. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations date use EPA Form 1900-69A. | | | | | | | | | | |
| SFO (Max 2) 22 | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 303 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 0 | | | | |
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| Total: | | | | | | 303 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
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| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
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| Work Assignment Manager Name Rachel Horton | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number 703-305-0894 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

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|--|----------------|----------------------|--|----------------------------|--|--|------------------|---------|-------------------------|--------------------------|
| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-15 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000003 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 | | | Title of Work Assignment/SF Site Name | | | | |
| | | | Base Option Period Number 3 | | | | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | | |
| Comments: The purpose of this amendment is to accept and approve the contractor's no cost increase of 86.2 hours requested on November 17, 2015. The approved level of effort is now 389.2 hours. The contractor is not allowed to go over the approved ceilings without the approval of the Contracting Officer. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 0 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 389 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 389 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| | | | | | | | | | | |
| Work Assignment Manager Name Rachel Horton | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number 703-305-0894 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-15 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000004 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name RCRA Benefits Project | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | | Specify Section and paragraph of Contract SOW All tasks | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: The purpose of this amendment is to appoint Chris McMinimy as alt WAM and to add additional level of effort (LOE) in the amount of 497 hours for on-going support under this work assignment. The total LOE for this work assignment is now 886.2 hours. The statement of work is attached. The contractor shall submit a work plan/cost estimate in response to this request. | | | | | | | | | | |
| <input type="checkbox"/> Superfund Accounting and Appropriations Data <input checked="" type="checkbox"/> Non-Superfund | | | | | | | | | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code (Max 7) |
| 1 | | | | | | | | | | |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | | | LOE: 389 | | | | |
| 04/30/2012 To 04/29/2016 | | | | | | | | | | |
| This Action: | | | | | | 497 | | | | |
| | | | | | | | | | | |
| Total: | | | | | | 886 | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee: | | LOE: | | | | |
| Cumulative Approved: | | | | Cost/Fee: | | LOE: | | | | |
| Work Assignment Manager Name Rachel Horton | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number 703-305-0894 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| _____ (Signature) (Date) | | | | | | Phone Number: 202-564-8316 | | | | |
| | | | | | | FAX Number: | | | | |

Statement of Work
Work Assignment Modification No. 3-15
EPA Contract #: EP-W-12-013

1. **Title:** Economic Benefits of RCRA Regulatory & Voluntary Programs
2. **Period of Performance:** Date of CO signature through 4/29/2016
3. **Work Assignment Manager:** **Rachel Horton**
Economics and Risk Analysis Staff
Office of Resource Conservation & Recovery

Mailing Address:
US Environmental Protection Agency
MC 5305-P
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Phone: 703-305-0894
E-mail: horton.rachel@epa.gov

Alt WAM: **Chris McMinimy**
Phone: 703-308-0105

4. **Background and Scope:**

The Office of Resource Conservation and Recovery (ORCR) is responsible for administering and tracking the performance of numerous voluntary initiatives and regulatory programs under its authority. Such programs are primarily focused on the proper management and disposal of both municipal and hazardous waste. ORCR routinely conducts program impact evaluations and benefit assessments for components of its overall program when feasible. However, the current effort seeks to produce a more succinct compilation of these program characteristics and impacts. In doing so, the requested analyses are intended to generate more defensible findings, while also covering the entire ORCR/RCRA program, so that this information will be more readily available for a wide array of uses both internal and external to the Agency.

To meet this objective, ORCR currently has a Work Assignment (WA # 3-15) and associated additional amendment in place to characterize the size, reach, and beneficial impacts

associated with ORCR/RCRA Program(s) (in terms of, for example, waste stream types and quantities, numbers of cleanups completed at corrective action sites, population within 1 mile of sites, number of permits, jobs related to permits, etc.). During the initial phase of this work, the aim has been to help better portrait the full breadth and extent of the program. These analyses are intended to put a solid foundation in place, and help produce key inputs necessary, for further higher level analyses. In this vein, WA #3-15 also calls for additional levels of analysis, to investigate and utilize relevant available data and predictive modeling tools to highlight qualitative and quantitative program-wide impacts and benefit estimates where feasible.

Under the approved Work Plan for WA # 3-15 mod, there are 6 Tasks including: 1) Work Plan and Budget Management; 2) Expand and Refine Groundwater Analysis; 3) Analyze Benefits of Permitting Program and Perform Job Analysis of Permitting Program; 4) Update RCRA Benefits Quantitative Data; 5) Estimate the Cost of Waste Management in the United States and Compare to Estimate of RCRA Waste Management; and 6) Perform Miscellaneous RCRA Data and Analysis Support Including Providing Briefing Materials. To achieve these tasks, the work plan included the development of a plan/outline aimed at flushing out the analyses and vehicles by which we would accomplish the overall objectives of the work assignment.

The purpose of WA #3-15 is to request further analyses from the contractor in order to expand upon the work already conducted to date under WA #1-15, 2-15 and the original 3-15 WA. The following Section 5 covers the State of Work and simply calls for the submission of the necessary work plan and proposed budget by the contractor. Tasks 2 through 6 then outline the additional analyses that are being requested.

5. Statement of Work: The contractor shall conduct the following tasks:

Task 1: Work Plan and Budget Management

Within 20 calendar days of the receipt of the approved work assignment, the contractor shall deliver a work plan including a proposed level of effort by subtask, budget, and schedule of tasks through the term of performance. If there are any questions regarding the work plan, please contact the EPA WAM. The contractor shall maintain at least weekly communication with the EPA WAM of any anticipated events which may cause an accelerated expenditure of approved funds for the period, and provide a monthly progress report regarding the status of work on the work assignment. The contractor shall also provide management oversight of the work assignment throughout its entire period of performance.

The Contractor shall describe in the work plan, how the Contractor plans to apply quality assurance (QA), and indicate in the work plan that the Contractor shall include a brief (e.g., one paragraph or less) summary of QA activities in the monthly progress/invoice reports to the WAM for this work assignment. Because the types of “environmental data” involved in this SOW may mostly come from existing secondary sources which have already been subject to QA (e.g., peer-reviewed journals, and other Federal agencies such as the Energy Information Administration, the Census Bureau, and the Bureau of Labor Statistics), the QA activities for this SOW may only require the Contractor to (a) examine data, calculations, and calculation results (e.g., evaluate numerical outliers), and (b) double-check spreadsheet calculation formulae.

In addition, the contractor shall provide a brief description (a sentence or two) in the monthly progress reports of the data-quality issues and activities met throughout the work assignment.

Task 2: Expand and Refine Groundwater Analysis

The contractor shall evaluate and further refine the draft RCRA groundwater analysis conducted under WA 3-15 dated September 2, 2015. The contractor shall add more clarity of methodology and revise the analysis based on Barnes and workgroup comments. The contractor shall also provide supporting explanation and answer questions from Barnes and the workgroup related to the groundwater analysis.

Examples of types of expansion of analysis that may be requested may include the following:

- Revise the underlying assumptions of the analysis that affect the estimated quantities of potentially conserved and/or ground water contamination amounts from the RCRA program.
- Add additional clarity of the methodology and/or limitations of the analysis.

Deliverables for Task 2:

The contractor shall produce deliverables for Task 2. Deliverable calls for the draft report of results to be finalized and also incorporated into any broader project documents associated with the overall project. The deliverables for this assignment will be due 20 days from receipt of Technical Directive (TD) the contractor shall budget for up to 3 TDs. The final report shall be due within 5 Agency working days from receipt of final comments from the WAM, Barnes and the workgroup.

Task 3: Analyze Benefits of Permitting Program and Perform Job Analysis of Permitting Program

The contractor shall help plan, collect and estimate quantitative and qualitative benefits for RCRA's permitting program. Dave Hockey has sent some permitting related data to IEc and the contractor shall conduct first a jobs analysis under short timeframe. The contractor shall start the permitting related jobs analysis upon receipt of this WA 3-15 mod. The initial task is to have the RCRA permitting benefits job analysis completed in time for the permitting branches data report which is scheduled for release in January of 2016.

The type of job analysis to be conducted will be done as described here unless the workgroup later suggests modifications. It appears that the facilities are identified in such a way that they are consistent with the facility identification systems used in EPA's EnviroFacts database. To that end, rather than using Dun & Bradstreet (D&B) data to look up facilities by name and map them to NAICS codes, the contractor may instead leverage EnviroFacts, which contains NAICS codes for all facilities.

In doing this, the process would be simply to attempt to match each of the 1,429 facilities on EPA's provided spreadsheet to a NAICS code from Envirofacts. This can be achieved by using any of: 1) The EPA ID; 2) The PGM System ID; or 3) The National Facility File Registry ID. Note that a cursory glance suggests that while not every single one of these three items will match a record in EnviroFacts, at least one will likely always match. The full extent of matching will be confirmed during the analysis, at which point options can be proposed for how to address any non-matching facilities, if any, to determine their NAICS codes.

Once the contractor has mapped numbers to each of the 1,429 facilities on EPA's spreadsheet, it is a matter of assigning employment and/or revenue information to these facilities. The Economic Census (most recent version: 2012, some data still pending, most recent full version: 2007) contains NAICS-specific distributions of both employment and revenue. The contractor shall use these distributions to estimate total jobs and total revenues at the 1,429 facilities. We propose to do this using both expected values (weighted averages) and medians for revenues and employment within a given NAICS code – in some cases the median may not be sufficiently descriptive, especially in instances where the permitted facilities in a NAICS code would be the larger ones.

The contractor will provide an estimate of total jobs and employment at these 1,429 facilities, based on their NAICS codes as represented in EnviroFacts, and the employment and revenue figures within those NAICS codes according to the Economic Census.

Deliverables for Task 3:

The contractor shall produce deliverables for Task 3. Deliverable calls for the draft report of permitting jobs analysis results to be finalized and also incorporated into any broader project documents associated with the overall project in time for the permits division's planned January report. Any other deliverables for this assignment will be due 20 days from receipt of Technical Directive (TD) the contractor shall budget for up to 3 TDs. The final jobs analysis report shall be due within 5 Agency working days from receipt of final comments from the WAM, Barnes, and workgroup. Other deliverables may be requested relating to permitting quantitative and qualitative benefits. The contractor shall also additionally add all permitting related quantitative benefits bottom line/high level estimates developed under Task 3 results to a prior IEC created report entitled *The Office of Resource Conservation and Recovery (ORCR) Program & the Resource Conservation and Recovery Act (RCRA) Their Essential Role & Widespread Benefits I. Scope and Reach of the RCRA Program* this analysis dates back from IEC to WA 1-15 and WA 2-15. The contractor shall update the latest version of the report. All final deliverables shall be due 5 Agency work days following receipt of all WAM and workgroup final comments.

Task 4: Update RCRA Benefits Quantitative Data

The contractor shall update any outdated data from the Scope and Reach of the RCRA Program document and other supporting RCRA benefits IEC documents. The contractor shall also update and finalize the IEC data ORCR Performance Measures Tracking spreadsheet initiated under WA 3-15. The contractor shall also QA and finalize a draft a performance measures

tracking sheet and then modify it based on direction from the RCRA project workgroup. The utility of the tracking worksheet is to have at a minimum an indication of relevance of RCRA benefits data, and the content types of content provided in the December 9, 2015 version.

Deliverables for Task 4:

Under Task 4 there will be two separate products/deliverables 1) an updated and revised *The Office of Resource Conservation and Recovery (ORCR) Program & the Resource Conservation and Recovery Act (RCRA) Their Essential Role & Widespread Benefits I. Scope and Reach of the RCRA Program* document with updated data and some additional benefits and 2) a draft ORCR Performance Measures Tracking Spreadsheet. The contractor shall produce an updated version of the Scope and Reach of the RCRA Program document draft to the WAM within 20 days of receipt of TD. The contractor shall produce the final RCRA program scope benefits document within 5 Agency work days following final comments from the WAM and workgroup. The contractor shall provide the WAM with a QA and helpful finalized ORCR Performance Measures Tracking Spreadsheet. The contractor shall finalize the spreadsheet within 5 Agency days from receipt of final WAM and workgroup comments.

Task 5: Estimate the Cost of Waste Management in the United States and Compare to Estimate of RCRA Waste Management

The contractor shall estimate the total cost of waste management in the United States including waste management that is outside the scope of RCRA. Barnes Johnson would like to know an estimate of how much it costs in the US to handle waste both hazardous waste and nonhazardous waste and recycling. The contractor shall not only provide a Memorandum on the aggregate cost of US waste management and methodology for the estimate, the contractor shall also have a table that compares that cost to the estimated cost of RCRA waste management. In addition the contractor shall provide sub headings for the types of industries and waste managed that aggregate to the total estimates of waste management either by NAICS code or some other method. The contractor shall use the most current available Census and any other data for these estimates and sub estimates. The contractor shall then revise and finalize the Memorandum under Task 5 based on Barnes/office director and the workgroups comments. The contractor will be asked to also list the number of jobs that are in waste management in the US. The contractor shall pull Census job data for this purpose to the extent possible.

Deliverables for Task 5:

The contractor shall produce a draft Memorandum Cost of Waste Management in the US versus the Cost of RCRA Waste Management in the US Analysis to the WAM. This assignment will commence upon receipt of this WA mod and shall be completed within 30 Agency working days. The final Memorandum under Task 5 shall be completed and sent to the WAM within 5 Agency work days from receipt of final WAM, office director and workgroup comments.

Task 6: Perform Miscellaneous RCRA Data and Analysis Support Including Providing Briefing Materials

The contractor shall at the request of the WAM prepare short turnaround presentations and briefing points related to Tasks 2 through 6. In addition to short turnaround briefing the contractor shall assist with any RCRA benefits related analysis and estimates that are needed for talking points, to add to reports and/or to supplement new requested RCRA budget justification efforts. The contractor may be requested to produce additional Memorandum analysis and/or estimate benefits of parts of RCRA not yet analyzed based on feedback from the WAM and workgroup. The contractor shall budget for up to 4 TD related to new economic analysis under Task 6. The briefing support shall not be tied to a TD and shall be on an as needed basis.

Deliverables for Task 6:

The contractor shall as needed provide briefing support and may be requested to create PowerPoint and/or assist with the creation of PowerPoint slides, bulleted lists and or tables for the purpose of presenting the results of analysis under Tasks 2 through Task 6. The contractor shall also produce up to 3 new economic analysis as requested by the WAM that help estimate qualitative and qualitative benefits of the RCRA program based on TD. The contractor shall budget for up to 4 TD related to new economic analysis under Task 6. The final Memorandum shall be e-mailed to the WAM no later than 5 Agency work days following receipt of final comments from the WAM and workgroup.

OTHER CONTRACTOR REQUIREMENTS

The contractor shall comply with all applicable requirements of the contract, including compliance with quality-assurance requirements, providing monthly invoices detailing progress and notifying the WAM of the status of remaining funds, and other requirements. The contractor must also ensure that the data collected for the characterization of environmental processes and conditions contain the appropriate QA/QC requirements to support the intended use of the data. In addition to the contract requirements for QA, documents that can be of used in developing the appropriate QA/QC requirements are: *Guidance for Data Quality Objectives* (EPA QA/G-4), and *Guidance for Quality Assurance Project Plans* (EPA QA/G-5). These documents and others can be found at the following Agency website: <http://www.epa.gov/quality/qs-docs/>.

All hard copy and electronic data collected for the purposes of analyses under WA # 3-15 and this subject Amendment (other than that data which is publically available) shall be shared with EPA. Similarly, any algorithms, electronic spreadsheets, and/or modeling tools generated by the contractor, for the purposes of analyses conducted to meet the SOW for WA # 3-15 and this subject Amendment, shall be shared with EPA.

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| EPA United States Environmental Protection Agency Washington, DC 20460 Work Assignment | | | | | | Work Assignment Number 3-15 | | | | |
| | | | | | | <input type="checkbox"/> Other <input checked="" type="checkbox"/> Amendment Number: 000005 | | | | |
| Contract Number EP-W-12-013 | | | Contract Period 04/30/2012 To 04/29/2016 Base Option Period Number 3 | | | Title of Work Assignment/SF Site Name Pharms Rule RIA | | | | |
| Contractor INDUSTRIAL ECONOMICS, INCORPORATED | | | | Specify Section and paragraph of Contract SOW All tasks | | | | | | |
| Purpose: <input type="checkbox"/> Work Assignment <input type="checkbox"/> Work Assignment Close-Out <input checked="" type="checkbox"/> Work Assignment Amendment <input type="checkbox"/> Incremental Funding <input type="checkbox"/> Work Plan Approval | | | | | | Period of Performance From 04/30/2015 To 04/29/2016 | | | | |
| Comments: This amendment approve the contractor's work plan/cost Estimate dated 1/6/2016 with level of effort (LOE) of 497 hours and \$56,655.03 (b)(4) cost (b)(4) fee). The new approved ceilings are: LOE 886 hours and \$88,892.47 (b)(4) cost (b)(4) fee). The contractor is not allowed to go over the approved ceilings | | | | | | | | | | |
| <input type="checkbox"/> Superfund | | | | Accounting and Appropriations Data | | | | <input checked="" type="checkbox"/> Non-Superfund | | |
| Note: To report additional accounting and appropriations data use EPA Form 1900-69A. | | | | | | | | | | |
| SFO 22 (Max 2) | | | | | | | | | | |
| Line | DCN (Max 6) | Budget/FY (Max 4) | Appropriation Code (Max 6) | Budget Org/Code (Max 7) | Program Element (Max 9) | Object Class (Max 4) | Amount (Dollars) | (Cents) | Site/Project (Max 8) | Cost Org/Code |
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| Authorized Work Assignment Ceiling | | | | | | | | | | |
| Contract Period: | | Cost/Fee: | | LOE: | | | | | | |
| 04/30/2012 To 04/29/2016 | | | | 886 | | | | | | |
| This Action: | | | | 0 | | | | | | |
| Total: | | | | 886 | | | | | | |
| Work Plan / Cost Estimate Approvals | | | | | | | | | | |
| Contractor WP Dated: | | | | Cost/Fee | | LOE: | | | | |
| Cumulative Approved: | | | | Cost/Fee | | LOE: | | | | |
| Work Assignment Manager Name Rachel Horton | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 703-305-0894 | | | | |
| | | | | | | FAX Number: | | | | |
| Project Officer Name Shannon Sturgeon | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 703-605-0509 | | | | |
| | | | | | | FAX Number: 703-308-7903 | | | | |
| Other Agency Official Name | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: | | | | |
| | | | | | | FAX Number: | | | | |
| Contracting Official Name Eulvid Rocque | | | | | | Branch/Mail Code: | | | | |
| <div style="border-bottom: 1px solid black; width: 100%;"></div> <div style="display: flex; justify-content: space-between;">(Signature)(Date)</div> | | | | | | Phone Number: 202-564-8316 | | | | |
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